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FOR JANUARY 6, 1947

Reuben Brigham

HE WAS a great, tall, awkward-looking fellow, homely of face, radiant of personality, whose body hung loosely together and became more stooped as the fifties began to pass. He first dawned on my consciousness the year of Taft's inauguration, when he, as a student, marched in the parade with the Maryland Agricultural College cadet corps. Spectators began to cry at him: "Big boy, how's the weather up there where you are? It sure is bad enough down here." I last shook hands with him at Auburn, Ala., after the August Agricultural College Editors meeting, and promised faithfully to have lunch with him soon in Washington, a promise I waited too long to fulfill.

This huge, somewhat gaunt, somewhat Lincolnesque fellow, who lumbered along like an old-fashioned farm wagon, was a biological mass of electronically fortified atoms. Born in Marlboro, Mass., in 1887, he grew up all over the world, wherever his father taught agriculture. But, in 1908, he graduated from Maryland and spent the next 5 years farming in that State. In 1913 he turned up as secretary and general assistant to President Harry J. Patterson, (who still survives) of Maryland University. Two years later he became Maryland's extension editor and also assumed charge of 4-H Club boys' work.

In 1917 he entered USDA to develop visual and editorial materials for extension work. He himself developed into a human institution. In time he took charge of all visual instruction and information work in Extension Service. Agricultural Adjustment Administration borrowed him July 1, 1934, to head its Regional Contact Section, and he returned to EXT. as assistant director May 1, 1937. He founded Extension Service Review in 1930.

But all that doesn't say it. He was more than a man. He was a force. Warm, human, friendly, dynamic, as earthy as his pure farmer name, he was known all over the Nation where many times he seemed to be the Department of Agriculture personified. No place was too small, no individual too inconsequential for him. He passed none by. Indefatigable, boundless in energy, incredible in production, incomparable in amity—farmer, outstanding career employee, Nature's own nobleman—earth of her earth, product of soil, his interest, dedication to duty, and nervous energy never once flagged—until 7:12 a. m., December 6, when Reuben Brigham (aged nearly 59) took off for more boundless horizons where his eager restless mind will find many unfinished tasks.

The ACP

IN THE November 25, 1946, issue of *USDA* we reported work being done by two Department agencies which deal with conservation problems (under the title Despoliation). A third and highly important agency carrying on mass conservation work is Production and Marketing Administration's Field Service Branch, which administers the Agricultural Conservation Program (ACP).

The Agricultural Conservation Program, started in 1936 under the AAA, is now handled in Washington by the Field Service Branch and in counties by locally elected farmer committeemen. ACP in 1945 gave assistance and encouragement to nearly 3,500,000 farmers and ranchers operating two-thirds of the Nation's cropland. The committees choose locally needed practices from a list designed to improve fertility, reduce erosion, and conserve water. Progress can be illustrated by a look at the volume carried out under the program in 1945, compared with 1938 (each figure represents percentage gain):

Application of lime, 320; application of fertilizer, 502; establishment of sod waterways, 5,400 (since 1940); construction of livestock water and erosion-control dams, 125; field strip-cropping, 750; green-manure and cover-crop acreage, 64; and contour farming of intertilled crops, 126.

In all cases the farmer contributes either in cash or labor to the cost of the practice. USDA assistance is regarded as the Nation's responsibility to help the custodians of our land take care of it. The farmer committeemen are firm believers that conservation farming leads to "better land—better profits—better health."

Research-marketing work

SECRETARY Anderson announced December 6 that the National Advisory Committee (see *USDA* December 9) had approved the designation of E. A. Meyer, Assistant Administrator of Production and Marketing Administration, to develop plans and programs under the Research and Marketing Act of 1946. Designation of Mr. Meyer for this work provides means for preliminary study of programs under the act, until the committee can further study the act and until funds authorized under it are appropriated by Congress.

The committee held its first meeting in Washington, December 4–6. It recommended establishment of commodity, technical, and functional advisory committees, with an over-all committee on utilization, to consist of chairmen of some commodity and functional committees with public and nutrition representatives. Details on Mr. Meyer's appointment and on proposals of the committee are in release 2632; write or phone 6114, Press Service.

Those interested in policy statements by USDA officials dealing with this act should procure copies of W. A. Minor's (Secretary's Office) talk in Detroit, November 18, Press Service release 2506, and of talks made by Mr. Meyer, November 18 in Washington, the next day in New York, and 2 days later in Los Angeles. Also see Grace E. M. Waite's article in September-October Marketing Activities.

Meyer, a native of Ohio who attended Goshen and also Wooster College in that State, served in the Army Quartermaster Corps during World War I, entered the

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food-processing business in 1920, and worked with the same company until 1941. In October that year he became consultant in the Office of Production Management. He entered WPB in March 1942, was appointed chief of WFA's Industry Operations Branch in September 1943, associate chief of Fruit and Vegetable Branch in March 1944, and its chief the following August. He served as chief of this branch in PMA until April 1946, when he became assistant administrator of PMA.

There is hope

FEEL TIRED when you get up in the morning? Backache? Suffer from bad railroad accidents, a tendency to throw yourself under streetcars, or other ills? "There is hope!" That has been said before. But maybe you are *not* as old and incapacitated as you think. Dr. Harry Benjamin, of New York City, told its Academy of Medicine awhile back that old age could be a blessing as well as a curse. He said a system of medical therapy could be developed which would add life to years, and he called it gerontotherapy, if you must get technical about it. He said also:

> The seniority system in Government agencies has often been criticized and may need revision and reexamination badly. But, even within this system, medicine is no longer powerless to attempt an improvement of individual shortcomings which are due to advancing years. Gerontotherapy can add life to years, while geriatric measures can add years to life by discovering and treating disease processes in time.

Already a new science of medicine (geriatrics) for the middle-aged and the aged is developing. It involves the use of hormones, diet, physical management, and other especially designed measures as a result of which persons may not necessarily be pensioned off in future when they reach a stipulated age. The question will be, how old are they mentally and physically, not just chronologically. If productive service could be extended for experienced, skilled workers of advancing age, it would be a great thing.

The doctor advocates a pension system based on mental and physical realities, not on mere age attained. Many who have been retired should still be at work; many now at work, if they cannot be aided by special medical measures, should be retired regardless of age, says he. If capacity is intact, retirement should wait. If you want details and can master a little technical wording, see his article in Urologic and Cutaneous Review, Vol. XLVIII, No. 1, pp. 17–24.

Information about USDA

BELOW ARE the titles of 10 mimeographed documents which can be supplied in limited quantities by the editors of the Department of Agriculture house organ, *USDA*. To procure them, *write* to T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C., or if you are in a great hurry phone Miss Glick, *Ext. 5451*, Room 406–A.

No. 1, Origin, Structure, and Functions of the U. S. Department of Agriculture, November 1, 1946; No. 2, Constituent Agencies of the U. S. Department of Agriculture, November 1946; No. 3, Abridged Chronology of Agriculture's Part in the War; No. 4, Condensed History of the U. S. Department of Agriculture, February 1, 1946; No. 5, Current List of Top Officials of the Department of Agriculture (Abridged), (usually revised monthly); No. 6, Important Recent Achievements of Department of Agriculture Scientists, January 1, 1947; No. 7, Outstanding Scientific Publications by USDA Research Workers Issued by the Department of Agriculture; No. 8, Abridged List of Federal Laws Applicable to Agriculture (Including Reference to Former Functions), July 1, 1946; No. 9, Biographies of Persons in Charge of Federal Agricultural Work, 1836 to Date; No. 10, Our Department Scientists.

Revisions of documents which obviously have to be kept current are made whenever necessary. *As we have no facilities for maintaining a mailing list or recording advance orders, we shall have to ask you please to communicate with us as above whenever you think new issues should be available.*

Back from overseas

HOME AGAIN after thousands of miles of travel that was often rugged but never dull, the U. S. members of the China and Philippine agricultural missions are more convinced than ever that the way to learn about farm problems is to get the facts first hand. They'll tell you that's as true on the other side of the world as in their own States.

They know whereof they speak, because their talks with farming people in remote areas, on-the-ground inspection of farming operations, and conferences with local officials have helped them to formulate intelligently recommendations for the improvement of agriculture in China and the Philippines.

It wasn't easy to gather the facts which have served as the basis of the missions' reports. The extensive travel which was necessary was not a simple matter. Airplanes and trains were used when possible. In other cases, however, transportation meant using a human-powered river boat, riding horseback, or using any possible means of getting there. But get there—wherever "there" happened to be—was just what the mission members did. In that way they found out what they wanted to know.

The missions, whose membership included agricultural technicians representing land-grant colleges and the Department, spent more than 4 months by invitation in China and the Philippines, collaborating with local officials in shaping agricultural programs of mutual benefit to the cooperating countries.

The heads of the China and Philippine agricultural missions were, respectively, Dr. Claude B. Hutchison, vice president and dean of agriculture of the University of California, and Dr. E. L. Call, dean of agriculture, Kansas State College.—QUINCY EWING, FAR.

Pills for plants

NOW THEY are giving a new kind of pill to plants. Following the release of ammonium nitrate from Canadian and United States munition plants in the spring of 1943 a problem developed. Ammonium nitrate is a cheap source of nitrogen. Furthermore its value as a fertilizing material has been proved in numerous field tests. Growers were enthusiastic over the release of this new supply. Their enthusiasm dampened when they discovered that this ammonium nitrate likewise dampened. It was too bibulous; it absorbed moisture too readily. It caked. Often it was impossible to use it in drills, and it was entirely unsuitable for separate application in the field. It was too desirable as a fertilizer, however, to be discarded without a strong effort to make it usable. What to do?

The War Production Board called on the Division of Soils, Fertilizers, and Irrigation, Bureau of Plant Industry, Soils, and Agricultural Engineering, for help. It did more. It provided part of the funds needed for working out methods to use the fertilizer. When you give research men ample working funds, you have made an investment, not an expenditure. Within a year the workers, cooperating with the United States and Canadian producers, had methods for producing *granular* ammonium ni-

trate—in pills, so to speak. In this form, and in good bags, it will not cake under ordinary conditions of transit or storage. And it does not become undrillable in fertilizer distributors because of moisture absorption. That means that these workers have made ammonium nitrate available in quantities large enough to insure us against shortages. And that is an "E" accomplishment of top rank. Technical Bulletin 912, Preparation of Ammonium Nitrate for Use as a Fertilizer, by William H. Ross, J. Richard Adams, J. Y. Yee, Colin W. Whittaker, and Katharine S. Love, of the Division, reflects this interesting story.—JOHN A. FERRALL, PISAE.

The vanishing horse

IT LOOKS LIKE taps for Dobbin as a work animal. The horse is doing a vanishing act. It seems to be headed for the last roundup, though some say riding-horse numbers increase. The top total number of horses and mules on farms was attained during World War I, and was 26,700,000; the comparable figure for January 1, 1940, was 14,911,000; that for the beginning of 1946, a mere 11,455,000. Outstanding reason for the horse's decline is not what you think—equine hamburger—but replacement of work animals by power-driven machinery, even as Commissioners of Patents were predicting when Federal farm work was first tentatively undertaken.

Of course the slaughter of horses has been large during the past 5 years, and you no longer see roaming herds of beautiful animals nobody owns, as the editor did on his first trip to Colorado in 1930. Meat has become scarce (as if you didn't know), the price of horses was low, and in 1945 inspected slaughter of the steeds attained a high of 77,837 head, 26,000 more than a year earlier, 3 times as many as in 1939. The slaughter rate of 1946 almost doubled that of 1945.

Commodity Credit Corporation alone purchased over 33 million pounds of canned and 5 million pounds of cured horse meat for the UNRRA program completed in August. It also purchased many live horses and sent them to Europe for agricultural work, another UNRRA program. During 1946 requisitions were issued for purchase of 90,000 mares for export. Private relief agencies also sent relatively small numbers. Exports of mules in 1944 and 1945 exceeded 4,500 a year and were the largest since 1930.

But when farm wage, such feed costs are high, horses vanish from agriculture. As new quantities and types of farm machinery become available, the trend strengthens and spreads. The number of colts raised is sharply reduced, and the rate and decline in horse and mule numbers accelerated. So long, Dobbin; nice to have known you, and you'll ornament art for many years to come, if that's any consolation.

"Pete" Hudgens leaves

THE Department lost one of its outstanding figures when Robert W. ("Pete") Hudgens left his post as Associate Administrator of the Farmers Home Administration to become Director of Field Organization for the American Cancer Society on January 1.

Hudgens pioneered in the field of rural rehabilitation when in 1930, as State Red Cross chairman for his native South Carolina, he began a program in which supervised farm-operating loans—instead of grants—were provided to distressed farm families. As one of the top officials of the Resettlement Administration, and later the Farm Security Administration, Hudgens helped develop the supervised credit program being carried on by the Farmers Home Administration today.

Through the years Hudgens has continued his great interest in people and established a wide reputation for his humanitarian views. Although the Department is sorry to lose him, it is good to know that "Pete" Hudgens will continue his work in the important field of cancer control.

British agriculture and forestry

DAVID ECCLES, a member of the British Parliament, has made an interesting and novel suggestion for the financial rehabilitation of British agriculture, which seems destined for bankruptcy once retail food prices have leveled off in the United Kingdom. British farmers then cannot possibly meet production costs when they will be getting far lower prices. Mr. Eceles suggests that, instead of subsidies, the Government recapitalize British agriculture by making it an interest-free loan of a billion pounds, with control over expending the money and over changes in the structure and methods of the agricultural industry.

Meanwhile Parliament has approved the Government's new plan to establish forests in Britain on a very large scale. The Forestry Fund is to be replenished with some £20,000,000 to cover plantings of some 365,000 acres during the next 5 years. At the moment England's small woodland area is rapidly dwindling under heavy cutting, but within 50 years the Government's program envisages an effectively managed forest area of from 2 to 5 million acres, the cooperation of private owners being sought and secured. Reasonable grants will be made to such owners also, insofar as they bind themselves and their successors to comply with good forest-management practice.

Those perspiring cows

WE HAD occasion previously (*USDA* December 23) to remark that cows common to this country are averse to perspiring. They work hard but do not sweat, hence special precautions are necessary in providing shelter for them. There are, however, cows which do perspire; these are from the *Bos indicus* family, common to Africa and Asia. They actually constitute more than 60 percent of the world's cattle, and include the sacred cows of India as well as the kinds of Africa.

But the cows common to Europe and America are of the *B. taurus* (aristocratic, nonsweating) family. From it have sprung breeds like the Hereford, Devon, Aberdeen-Angus, and Shorthorns for beef, and the famous Jersey, Guernsey, and Holstein milk producers. They have been highly bred for specific value to man, but they have mostly been developed in cold climates and, unlike their *B. indicus* relatives, have no sweat glands. Such breeds, however fine, do poorly in Florida and other Southern States, whether for beef or milk production.

Consequently experiments are well under way in several places to combine the good producing qualities of the nonsweaters with the possession of sweat glands, by breeding them with cows which can perspire. In Florida in October it is common to see Brahmans happily grazing in the blazing sun, their hides glistening with perspiration and keeping them cool, while the Devons lie in the shade and pant. Experiments have shown that, while the sweaters maintain normal temperatures in the hottest part of the day, the nonsweaters work up a temperature. The Brahmans produce economically, have hybrid vigor and bet-

be recruited through regular examinations for vice-consuls. In each of the next few years about 10 or 15 new officers will be required as replacements; thereafter only 4 or 5 a year will be needed. Provision is made for agricultural technicians to be recruited for temporary periods in a Reserve Corps.

Training an officer to become a one-man USDA abroad is a difficult job. The ideal representative would be an authentic paragon, highly skilled in both technical agriculture and economic analysis, and with knowledge of at least one foreign language. A model college course, followed by graduate work, would include 60 credits in agriculture and 40 in economics. The official revamping of the U. S. Foreign Service began November 13, with the Department being represented by L. A. Wheeler on the newly established Board of the Foreign Service. Present planning includes an oral examination under the Manpower Act, G. I. tests, and the 1947 regular Foreign Service exam.

Burbank

FOR many years Luther Burbank was a subject of public controversy and this is in a large sense still true. The best account of his life and work the editor has seen is Walter L. Howard's monograph, entitled "Luther Burbank, a Victim of Hero Worship." Howard is emeritus professor of pomology and late director of the college of agriculture, University of California. His work appeared in Chronica Botanica, volume 2, No. 5/6, winter 1945–46.

It is a heavily documented and very informative study. It indicates that Burbank actually became a rather egotistical and extremely successful glorified nurseryman, with a strong tendency to exaggeration. He had many of the attributes and characteristics of the true scientist, but lacked the orthodox research workers' formal education and conventional behavior. In consequence, says Howard, he tended to excite the hostility of many research workers mainly by reason of his personality, his passion for publicity, his unorthodox methods, his concentration on what would sell, his exaggerations in his catalogues about his findings, and his failure to keep proper notes of the crosses he made and other procedures.

However, he received world publicity for good reason. He introduced over 250 fruit varieties, his plums being his greatest contribution. His introductions during 50 years covered a total of over 800 new strains and varieties of plants. At one time or another he performed selection or hybridizing experiments on about 200 plant genera. As he aroused scientific suspicions and lacked proper research standing, he himself developed some antagonism towards formal scientists. His friends wildly exaggerated his accomplishments; his detractors reviled him intemperately and contemptuously. But read Howard to get the story.

Brief but important

Paul Appleby, former Under Secretary of Agriculture, has resigned as Assistant Director of the Budget to become Dean of the Maxwell Graduate School of Citizenship and Public Affairs at Syracuse University.

Important Recent Achievements of Department of Agriculture Scientists: This Document No. 6 in the *USDA* series has been revised for reissue as of January 1, its semi-annual revision. It contains brief but varied items in popular style on the research accomplishments of Department scientists during the past 6 months and is much used by magazine writers, editors, and others who want to know about USDA's scientific progress. *Write* the editor of *USDA* or phone Miss Glick, 5451, who can also supply lists of all 10 documents.

Wool Advisory Committee: Membership of this committee, under the chairmanship of H. E. Reed, Director of Production and Marketing Administration's Livestock Branch, was announced November 21. It is composed of grower, handler, and manufacturer representatives and assists the Department in administering its wool merchandising program.

Vicarious visit to Washington: Recently Frank Jeter, North Carolina's extension editor, spent a week or so in Washington. When he returned he broadcast his impressions on October 30 from WPTF in Raleigh. If you wonder what the place looks like to an occasional visitor from the field, maybe you'd like to read this broadcast. The editor has thoughtfully gotten hold of a few copies for any who care to *write* to T. Swann Harding, Office of Information, USDA, Washington 25, D. C., or call Miss Glick, 5451.

Mrs. A. E. Harrell retires: Annette Emory Harrell, first woman plant-quarantine inspector in USDA, retired November 30 after 40 years of public service, 25 of them in USDA. Formerly a teacher in the District of Columbia public schools, Mrs. Harrell came to USDA as inspector in the former Federal Horticultural Board in 1921. As plant-quarantine inspector, she has been outstanding in knowledge of issuance of special permits for importation of plants for propagation. She holds B. A. and B. E. degress from George Washington University and a special certificate in science from Cornell. She is vice president of the Rebekah Assembly and treasurer of the Department Association of Ladies Auxiliaries Patriarchs Militant, Independent Order of Odd Fellows. She plans to travel extensively in connection with this organization, but is living in Washington where she and her husband have a home.

Attention, old hen! Dr. T. C. Byerly, of the Bureau of Animal Industry, says: "It takes 25 pounds of feed to develop a pullet to the laying stage. It takes about four-fifths as much feed to carry a hen through the 3 months usually required to molt. In the old hen you get only a new coat of feathers, while in the pullet you get 5 pounds of poultry meat." Turn that over in your mind while ruminating on the nest. Pullets lay more eggs than hens. A serving of chicken feathers is not half so palatable as a serving of white or dark meat, so it's pullets in the laying house and old hens in the kettle as far as Dr. Byerly is concerned.

What Sanders did: Dr. George P. Sanders, of the Bureau of Dairy Industry, has devised a test so delicate that it would indicate the presence of as little as a pint of raw milk in a ton lot of pasteurized. It could do that even if applied to cheese made from the milk. The test was already being used for milk and cream; cheese is new. It also works well with goat's milk which, if unpasteurized, may carry Malta or undulant fever. It is hoped the test can soon be so modified as to apply to cheese made from goat milk.

Samuel H. McCrory retires: Mr. McCrory, USDA agricultural engineer, retired November 30 after 40 years of service. On December 6 he was guest of honor at a dinner given by friends and coworkers at the Log Lodge at Beltsville, where a humorous playlet, Memoirs of a Marijuana Merchant, or Pipe Dreams of a Great Engineer, spotlighted events in his career. Mr. McCrory has been, successively, Chief of Drainage Investigations, Chief of Bureau of Agricultural Engineering, and Assistant Chief of Bureau of Agricultural Chemistry and Engineering. He was the first recipient of the John Deere Gold Medal of the American Society of Agricultural Engineers in 1938. During World War II he headed a USDA Nation-wide program for producing and processing hemp for manufacture of cordage for military and necessary civilian uses.

Wanted: A Program for Freedom: Somewhat belatedly, for it just "came to our attention," as the saying is, let us call *your* attention to this fine article by Milton S. Eisenhower, President of Kansas State and former USDA Director of Information, in November Country Gentleman. The article is stimulating, more than thoughtful—philosophic would be nearer the word—easily read, and reasonably brief. If you haven't seen it we suggest you make an effort to find and read it.

They need sun! Do your begonias wail dismally and keep you awake at nights? Do your geraniums tend to droop and assume a wan expression? They need sun! Put them in the south window. African violets and marica will thrive with little sun, so give them the east or west windows. Foliage plants grown for their decorative leaves will often do well in north windows; so may cacti which, if you pinch them, you will find half asleep in winter anyway. But flowering plants need sun, and even a north window that gives good light may be no place for them. USDA plant scientists say, "Suit the plant to the window." Then watch it stand up and cheer.

Flies in the sugar bowl ornament the cover of Leaflet 182, revised August 1946, which gives the facts on Housefly Control.

Food for the Family with Young Children is the title of AIS 59, issued in November. It is attractive, readable, storylike, fact-packed, recommended here and now.

List of Publications: Bertha Louise Zoeller and Mabel Hunt Doyle have combined forces to bring forth M. P. 611, a List of Publications of the USDA from January 1941 to December 1945, inclusive. The authors are in the Indexing Section, Division of Publications, Office of Information. Their jobs are tedious but well performed and we believe they enjoy their work too.

Buried Treasure is the title of a rather ambitious and impertinent talk the editor of *USDA* delivered before the technical staff of the Northern Regional Research Laboratory at Peoria, December 9. While the speaker is a reformed chemist, he probably did go rather out on a limb. But if you'd like to read the talk and confute it point by point, some copies are available. It discusses the entire research process from hunch, through laboratory work, to preparation for print and publication. *Write* editor of *USDA* or phone Miss Glick, 5451.

Still Thomsen: The stimulating and illuminating talk which F. L. Thomsen, Head, Division of Marketing and Transportation Research, Bureau of Agricultural Economics, gave so vividly, on Developments Affecting Market Outlets for Farm Products, before the Outlook Conference, appeared in BAE's Marketing and Transportation Situation for November. It also appeared in September–October Marketing Activities. You are urged to read it. Dr. Thomsen also has mimeographed copies he could send out on request. You will find much straight talk and many novel ideas here.

Egg-grading schools: You probably didn't know it, but the USDA fosters schools on shell-egg grading for State and regional supervisors of inspection and grading. Last December a conference was held in St. Louis to develop uniform interpretation and techniques among supervisors in charge of State programs. A series of 30 schools for training in such work is planned for 1947. These are conducted jointly by Federal-State inspection and grading services and State college extension services. Graduates are eligible to qualify as licensed graders and may be considered for employment in such capacity.

Comings and goings: Laura Lane, Lone Star State editor for Texas Extension Service since 1939, is leaving to join Country Gentleman, where she becomes associate editor and director of the Country Gentlewoman department. . . Virginia Watkins, former writer of Homemakers' Chats for USDA Radio Service, becomes editor at the New Mexico Agricultural Experiment Station. Miss Watkins, the daughter of D. W. Watkins, South Carolina Extension Director, succeeds Margery Suhre, now assistant extension editor at Illinois.

Challenge to the Cities: Material for an article by this title on a 4–H Club family in Saturday Evening Post for November 30, was gathered with the help of the National 4–H Committee and Federal and State Extension Service people. They made suggestions to the author, Neil Clark, who chose the Andrew Olson family, of Council Grove, Kans., as an ideal couple for a 4-H story. The article is illustrated with colored photographs.

Prime meat again: The Department, effective December 3, reinstated Prime Grade to official standards for grades of beef, veal, and calf. This grade was suspended October 1, 1942, as a wartime measure. Restoration of Prime Grade is the only change in the grading regulations.

New method for naval-stores production: The Naval Stores Station at Olustee, Fla., of the Bureau of Agricultural and Industrial Chemistry, has worked out a new and cheaper method of producing turpentine and rosin. Preheated sap or "gum" from southern pine trees is put into one end of a new-type continuous steam still, and about 5 minutes later turpentine and rosin are taken out from separate points at the other end. Clever, isn't it? And the rosin produced this way is about half a grade better than can be produced on the best batch-type steam still.

All about longleaf pine: "Longleaf pine; its use, ecology, regeneration, protection, growth, and management" is the whole title of a new book by W. G. Wahlenberg, of the Southern Forest Experiment Station. As a reviewer in Science for November 29 says, somewhat scientifically: "This is a concise and clearly presented synthesis of the voluminous empirical and fundamental information . . . on the silviculture and management of one of America's most valuable forest trees." Then, in plainer language, "It should be of great service to practicing foresters, scientists, students, and teachers." The book, published by Forest Service and the Charles Lathrop Pack Forestry Foundation, is available from USDA Library, or can be bought ($5) from the Foundation, Washington, D. C.

Soil Conservation Society of America: A new organization by this name held its first meeting December 12–13 in Chicago. Membership is based on technical training or experience, but certain other persons interested in conservation are invited to become associate members. R. H. Mussler, Milwaukee Midwest regional conservator of Soil Conservation Service, is president; J. H. Christ, Portland, Pacific Coast regional conservator of SCS in Oregon, is secretary. Among the speakers at the meeting were Assistant Secretary Brannan, Chief Bennett of SCS, who gave the founder's address, Extension Director Wilson, G. E. Young, Office of the Secretary, and other Department people.

Rural surplus property: The Secretary of Agriculture and the War Assets Administrator have an agreement on disposal of surplus war property in rural zones. The Secretary names officers to collaborate with agricultural specialists of the WAA in regional or district zones. The agricultural agent of the Secretary may recommend to the WAA specialists with regard to areas and seasonal farm needs and desirable diversion of surplus property in both amount and kind. Meanwhile an order was issued that made each State PMA director the Department's officer to work with the WAA. Agricultural specialists for WAA were being designated.

Facts on farm water: Maybe you didn't know, but a fat steer needs 10 gallons of water a day, a cow 25, and milk is 87 percent water, vegetables from 80 to 97, eggs 65, and meat 60. These and other pertinent facts appear in Water for the Modern Farmstead (AIS–44), a new 4-page publication emanating from Rural Electrification Administration. Write Office of Information or pick it up from the patio of Administration Building.

Grain restrictions eased: The Department on November 29 announced removal or modification of some restrictions on the domestic use of grain. The actions, effective December 1, affect the production of flour, alcohol, and beer. The relatively favorable grain situation, as reported by Secretary Anderson to President Truman in a statement released November 29 by the White House, made possible the changes. Details of the actions are in release 2563; write Press Service, or phone them on 6114.

New barley variety: A new barley—temporarily named Bulk Selection W 47—which has outyielded the best competing varieties by over 11 bushels an acre, has been announced by the Wyoming Agricultural Experiment Station. The barley was chosen at the Aberdeen, Idaho, branch station of USDA and later was tested thoroughly in Wyoming. Bulk Selection W 47 is an irrigated variety. A small quantity of seed will be released to certified seed growers of the Wyoming Crop Improvement Association next spring, but none for general distribution until 1948.

Congratulations to GS: As the Department Graduate School celebrated its twenty-fifth birthday last fall, President Truman sent congratulations in a letter on November 25 to Secretary Anderson. The President said in part: "By making it possible for employees to train themselves both intensively and extensively for proficiency in their present positions and for advancement to better positions, the Department has made broad contribution not only in the public interest but also with respect to the morale and usefulness of individual employees. By opening these classes, from the beginning, to employees of other departments, the Graduate School has rendered a similar service to the entire Federal Government."

Now it's nonsticking doors: Forest Service chemists in Forest Products Laboratory at Madison, Wis., have produced a nonswelling wood by a special treatment with certain chemicals, the vapor of which penetrates the cells of the wood and retards swelling. Tests indicate that the treatment also enhances resistance to decay and to certain insects. Possibly Alfred J. Stamm and his associates have thus ended the age-old nuisance of doors, drawers, and windows sticking on hot humid days. The tendency of wood to swell also has seriously impaired its value in aircraft and for other purposes.

Farmer earns $52,026: Laverne E. Hall, the 20-year-old farmer who received the Presidential National 4-H Club Trophy at the recent International Livestock Show, sure hit pay dirt. He started farming 8 years a in Wisconsin with a single Jersey h and has since earned an average of a year! Of course, he earned mo during the last 5 years, but he to people that there is good money on the farm. He believes the f get his start while in high s tainly appears to have prove

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Snowstorms à la car tists in converting a pelting it with pellet dioxide may presage t made snowstorms or ev haps clouds may soon their snow outside cite winter resorts which Under some conditio the original experim earth, might be cha cipitated where de

work to be done yet, but the day of migratory clouds dumping their moisture where it is most needed may yet dawn. Soil Conservation Service snow surveyors, please take note!

The new Journal of Gerontology has the rather odd idea of getting out both a technical or scientific and a nontechnical or popular edition of each issue. C. M. McKay, of Cornell, one of its contributors, says the notion is at least novel, even though it might bring the venture to bankruptcy. Or might other scientific journals be induced to follow suit?

Sampling: On December 2 Mrs. Laurel Sabrosky, Extension Service's Division of Field Studies and Training, spoke before the Cornell Extension Club at Ithaca. Her subject was the use of sampling procedures. Her presentation was outstanding for simplicity and clarity and all who are interested are strongly advised to pester her for mimeographed copies of her talk. For 40 long years we have been searching for someone who could make the rather abstruse mathematics of correct sampling procedure clear and simple enough for even us to understand. The search is ended. Mrs. Sabrosky attended to that.

O. E. Baker addressed the Charles Carroll Forum in Chicago recently, and suggested admission to the U.S. of large numbers of "displaced persons" and immigrants to offset our rapidly declining birth rate. He forecast half-empty cities in the not far distant future. He maintained that increased immigration would tend to heighten rather than lower our standard of living. The Chicago papers listed him as still from USDA, though he left Bureau of Agricultural Economics some years ago and is now at University of Maryland.

Gay old migratory agriculturist: Liberty Hyde Bailey, Cornell's father of American agriculture, now in his eighty-ninth year, not only spoke to a hand-picked Cleveland audience a few weeks ago, and frequently undertakes such jobs, but more recently flew to the Dutch West Indies. From there he took off to Trinidad where, off the coast of Venezuela, he is collecting botanical specimens. However, he is merely doing this until permission comes through from the Brazilian Government for him to explore along the river Amazon and its tributaries. Eventually he'll dash back to Ithaca for a while.

Lasker Award: The Peoria Star of November 25 announced proudly that one of the Albert nd Mary Lasker Foundation awards for 1946 ' been bestowed on the Northern Regional rch Laboratory for its work on penicill- consists of a thousand-dollar com- 've statuette. The Star added its 'ons and thanked the staff for the ' brought to Peoria.

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strative, and supervisory n possibly get hold of r December (the Library st), don't miss reading ucker's article on Citi- . You will find much to ulate thought, much to

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ing: Agricultural Re- .V. V. Lambert's excel- e enlarged USDA re- t the Research and is on the statute books; procure copies from E. G. Moore, in ARA, or *write USDA* editor . . . Henry Jarrett's gracefully readable presentation of the Food and Agriculture Organization's conference at Copenhagen, and Alfred's Stefferud's brief history of the Agricultural Yearbooks, *both* in Land Policy Review, Bureau of Agricultural Economics, Winter 1946.

Research Achievement Sheets: No. 66 tells how to tattoo hogs so as to identify them, a discovery worth $5,000 a year, made at a cost of $1,000. No. 67 discusses a new method of getting better eggs from better hens; it cost approximately $120,000 to develop and is potentially worth around $4,000,000 a year. Cumulative taxpayers' dividends are heavy in both instances. Get the sheets from D. S. Burch, Agricultural Research Administration (phone 3780).

Agricultural Advisory Service: Says the Economist (London) October 26: "The details which were made public this week of the working of the National Agricultural Advisory Service, which was formally set up October 1, raise the whole question of the future of State control of agriculture. The Service will cost about £1,500,000 a year and employ a staff of 1,750, of whom 1,500 have so far been selected. The aim is to have about 1 advisory officer to every 1,000 farmers and growers. The new national service has taken over the general advisory work previously done by the local authorities and the specialist service provided by the universities and agricultural colleges. There will certainly be a great gain in uniformity of service, and it will now be possible to provide specialists in new fields and to set up a valuable chain of experimental farms and horticultural stations."

To savor the pleasures of rural life, read An American Year, Country Life and Landscapes Through the Seasons. It is by Hal Borland, is illustrated by distinguished contemporary artists, and the publisher is Simon & Schuster, New York City. Beautiful in appearance and text, it is revealing to those unacquainted with rural life, while it stirs poignant memories in those who are.

The Moon and Plant Growth: A documented article of this title in Nature (London) for October 26, by Dr. C. F. C. Beeson, Imperial Forestry Bureau, Oxford, England, just about polished off this subject. According to the best of the research studies, there is no perceptible lunar influence on the growth of land plants.

Big words: Use them, if you can manage them, but remember Admiral Nimitz' story of how he once rejected a young man for the Navy for onychophagia, only to find out later that the chap was merely a nail biter!

Nonskid quilts: Do your quilts slip off the bed while you sleep and crawl around the house annoying the cat and the neighbors? Then why not build yourself a nonskid quilt? That doesn't mean you have to nail the quilt to the mattress. Our home economists merely suggest that a more satisfactory (and less migratory) comforter can be fashioned with satin on one side and a less slippery fabric like crepe, velvet, or velveteen on the other. Of course you can anchor the quilt by tying it to the bedposts with ribbons, but that would make a man feel silly. Even strips of velvet over the satin will help. No charge for this official solution of the where-did-the-bedclothes-go problem.

Kale: We don't mean money; that's cabbage—or isn't it? Anyway this crinkly greenstuff that begins to look wan if you cook it too long is stuffed full of vitamin A, or the yellow-orange pigment carotene, which the body obligingly turns into A. The body utilizes kale carotene even better than it does carotene from carrots, so eat kale for high returns in vitamins and minerals, but cook the green leaves in just enough boiling salted water to prevent sticking—and just long enough to tenderize them.

Starlings: If you are interested in these impudent upstarts, Cornell ornithologists can tell you a lot. They were introduced in Central Park, New York City, in 1890, and for 5 years stayed in the metropolis. But by 1900 they were on the move, and today you will find them in Boston, Washington, D. C., Ohio, North Carolina, southern Canada, Hudson Bay, Utah, on the Mexican border—this begins to sound like a timetable. They like the city, but in some areas destroy more small fruits and corn than all other birds combined. On the other hand, they like and eat many insects which injure crops, so their extermination is undesirable. Fact is, it is impossible, so we may as well try to learn how to get along with the officious, disorderly critters.

$15 a year to soften water? It has been estimated that, if a family uses 55 gallons of hard water a week for washing with soap, it takes 119 pounds, or at least $15 worth of soap, just to *soften* water. Use water softeners instead, and save soap: Washing soda is best; trisodium phosphate (TSP), tetrasodium pyrophosphate (Pyro), and sodium hexametaphosphate (SHMP) are good; lye or caustic soda, ammonia, borax, and baking soda are not recommended.

Synthetic fiber research: All four USDA Regional Research Laboratories are at work on synthetic fibers. The southern lab has made sarelon from peanut protein; the northern has made zein from corn protein; the western has made fiber from chicken-feather keratin, a protein; and the eastern has improved casein fiber, known for years, and developed a continuous process for manufacturing casein brush bristles.

More definitions of a conference: A conference is an artificial lung for the restoration of bewilderment . . . A conference breathes life in the molding skeletons of withered problems, thus creating a surrealist world of stagnant disorder . . . A conference is dynamite without the fuse.

Information about the Department: If you want information about the structure, functions, origins, top officials, scientific achievements, and famous research workers of the Department, or about the lives of those who have headed the USDA throughout its existence, the laws authorizing its activities, and what it did during the war, *write* to T. Swann Harding, Office of Information, *or phone* Miss Glick, Ext. 5451, *Room 406–A,* for a list of the 10 *USDA* documents which give this information.

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USDA

FOR JANUARY 20, 1947

Peoria

THE EDITOR got back to Peoria December 9, when he addressed the technical staff of the Northern Regional Research Laboratory there, a talk already mentioned as available in mimeographed form to those who want a copy. In addition to the laboratory, the offices of C. W. Jackson, Grain Branch, Production and Marketing Administration, and of Farmers Home Administration's county supervisor, William A. Raabe, were visited, while telephone contact was made with County Extension Agent Diamond, L. M. Woodruff, Livestock Branch and Market News, PMA, and V. W. Routzong, in charge of the Bureau of Animal Industry's meat inspectors.

We hit two firsts. Agent Diamond says he glances at *USDA* and chucks it in the wastebasket unread, the only "subscriber" we have encountered who has so expressed himself; he is undoubtedly a man of strong principle and firm resolution. Also the BAI meat inspectors had never even heard of *USDA*. In all our travels this is the first time we have discovered any field employees who didn't know of the existence of the house organ.

At the northern lab we talked with J. C. Cowan, E. C. Lathrop, and A. F. Langlykke, among others. We learned how zein protein fiber is made from corn gluten and of its excellent prospects for fabricating neckties and underwear. It is strong as wool, feels a bit like silk, is elastic, but amenable to stabilization. We discovered that our old friend, the 5-carbon sugar xylose, could actually be fermented quite completely by a new process being developed, and that the work on preventing instability of soybean oil flavor is progressing rapidly. We attended a conference on the making of liquid fuels from agricultural residues.

Lathrop has under way a comprehensive bulletin on some 20 or 30 such residues, giving current facts regarding their availability, composition, farm use, possible industrial uses, and economic value. The job is monumental and Lathrop is highly qualified to tackle it. If the material could be published with separates on each residue—like straw, cornstalks, etc.—it would be extremely valuable to research workers in this field everywhere, and would save the tedious answering of hundreds of queries by writing long technical letters. Lathrop believes wholeheartedly in stimulating research elsewhere as a proper function of the Government's scientific institutions.

Watch out, hog

THAT HOG who has been repining the fact that synthetic bristles are replacing his own in the manufacture of brushes had better get really worried now. For the process of making bristles from casein, developed at our Eastern Regional Research Laboratory in Philadelphia, has been applied commercially and proved successful. Developed by Dr. Thomas L. McMeekin and associates, the fiber has attracted the attention of the Rubberset Co., which is opening a new factory in Salisbury, Md., for the manufacture of casein bristle and brushes, in which the process of the USDA scientists will be used.

Casein from waste skim milk is the main constituent, though other protein materials from other agricultural commodities may be employed later. A mixture of casein and water is extruded through a suitable die and then subjected to finishing operations. The final product is round in cross section and black like horsehair or pig bristle, but can be produced in any length or diameter desired. It is particularly adapted to making paint brushes because it resists oils and organic solvents.

True, supplies of natural bristles have improved. The hog is doing the best he can. Nevertheless an increasing demand for high-quality, low-cost, artificial bristle is anticipated. So watch out, hog. But we should add that the hog bristles used in this country usually came from China; there are plenty of domestic bristles, but they are not long enough because we simply do not let boars live until they produce nice long bristles.

GS spring semester

SPRING semester classes of the Graduate School, beginning February 3, include some 180 courses in 8 major fields. The following are new: Seminar in Agricultural Prices and Income Policy; Seminar in National and International Policies Affecting Agriculture; Problems and Machinery of World Organization; Non-Self-Governing Peoples and Trusteeships; and Modern Engineering Materials.

Credits for USDA employees taking GS courses are placed in official personnel files, in accordance with Personnel Circular No. 144, September 22, 1944. This is important in connection with USDA's promotion-from-within policy. Under Public Laws 16 and 346, GS courses are available to World War II veterans who, before registering, should obtain eligibility certificates from the Veterans Administration.

Catalogs of Washington and correspondence courses may be obtained from the GS Office, 1031 South Building.

"B. A."

BRISTOW ADAMS, long dean of the Agricultural College Editors Association and worker in the extension vineyard at Cornell, is now really enjoying life at his Ithaca home, where he still sits up all night, though with no one to disapprove, as did a roommate in student days. However his best friend and severest critic, Mrs. Adams, does not always admire the frames in which he places the really attractive and quite professional oils he sits up till 4 a. m. to paint. For instance, he fancies ropes on the frames of nautical scenes, a conceit Mrs. Adams vivaciously deplores.

In addition, B. A. is editing The Cornell Plantations, an instructive and highly readable (even the table of contents is

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novel) quarterly published in the interests of the arboretum which is so-called also. This occupation rates him a well-cluttered office in Roberts Hall, the clutter consisting of printed and manuscript material he intends to sort sometime into the sheep and the goats, though his present notion is to take the easy way and discard the entire lot of it. If you want to keep in touch, send $1 to get The Cornell Plantations for two years; you will find it uniquely fascinating, if you have the least love for rural subject matter. Contributions for the arboretum are also acceptable.

B. A. reminisces on the Forest Service of 40 years ago—he was one of its first information workers. He also tells about the time he wrote a brief address for taciturn, astringent Calvin Coolidge, which the then President used unedited after prefixing a Biblical allusion to start it off. B. A. is ageless, timeless, and unchanging in that alert and youthful way of his, and, try as he will, simply cannot act the part of senile patriarch and elderly councilor. Since he both edits and writes for The Cornell Plantations, you can't go wrong on it.

The platypus

IN "Don't Monkey With the Platypus," Bergen Evans has produced just about as good a brief popular discussion of wildlife conservation, the balance of nature, and related topics as you are likely to discover in many a day. He is author of that fabulous book, The Natural History of Nonsense, and his article, from which the following paragraph is quoted, appears in Harper's Magazine for December.

> Agriculture, upon which all men are completely dependent, is a form of applied biology. It is a making use for man's benefit of the interrelations of living things. For plants do not just grow of themselves. They are an expression of the soil, the climate, the typography, the underlying formations, *and the animal life* of the regions in which they flourish. The pollinating bee, the aerating worm, and, above all, the putrefying bacteria are indispensable parts of the process of which the plant is only one manifestation.

Do get the magazine from the library or buy a copy on the stands, and read the entire article to improve your value as a USDA worker. Evans is on the English faculty of Northwestern University, but wrote in close consultation with Albert M. Day, director of Fish and Wildlife Service, and Orlando Park, professor of zoology at Northwestern. Note also Bumper Crops in the Desert, by Oscar Lewis, formerly with what Jack Fischer, who used to be in old Farm Security Administration and is now a Harper's contributing editor, lets the magazine miscall our "Bureau of Farm Economics," and a story called "Elmer," by John Watson, an assistant professor of English at Texas A. & M. Seems Harper's has improved greatly since Fischer joined its staff.

Wise man: wise words

"ALTHOUGH thousands of farm families are being helped by Extension Service agents to improve their homes, too many low-income farm people are still being passed by," declared wise old Tom Campbell, Extension Service Negro field agent, in a talk on rural housing before the Ext. supervisors' workshop at Southern University, Baton Rouge, La., not long ago. Mr. Campbell, chairman of the 2-week workshop, urged the 50 supervisors in attendance to stress the importance of rural housing in their conferences with county agents, saying, "You ought to go out and get some first-hand information on the housing needs of the people."

Pointing to an enlarged photograph of a dilapidated farm home, the field agent told the supervisors that they ought to spend a night occasionally in a home like this with no sanitary toilet, no electric lights, no screens, and not half enough rooms for its 8 occupants. Here's more from his talk:

> Now I know that many agents are encouraging farmers to improve their homes; some are helping them to obtain plans and materials for building or repairing their homes, but I am afraid that we are passing by this family and thousands of others like it in our rush to make a showing. Some of us drive 15 or 20 miles to get to a good home to spend the night when we ought to spend it right where night catches us.
>
> Thousands of our people are living in homes that are actually falling down; when it rains they have to use every utensil in the home to catch the water. Some of our farm people have few bed covers and no sheets or pillow cases. Little children are growing up in these homes—children whose lives are threatened by diseases, and who are being robbed of the capacity to serve America. It's a fine thing to teach farm people to conserve their land, develop purebred animals, and add the necessary labor-saving equipment to expedite farming operations, but unless we teach the farmer to direct all these toward the goal of better living, we haven't helped him very much.

The supervisors' workshop was held for the purpose of improving the supervision of some 700 colored farm and home demonstration agents in the 15 Southern States. Similar workshops are being held for the supervisors of white agents

Asparagus hybrids

"GOOD!" commented Mary Louise, nibbling her lunchtime asparagus.

"It's the Mary Washington variety, one of ours," explained the Old Timer.

"Fine job! Who did it—some one still around? I might kiss him!"

"Not until you get your wings; he's dead," said the Old Timer. "Jesse Baker Norton added this asparagus to the Bureau's list of achievements. He did it at the right time, too; around 1910, when the rust disease threatened to wipe out American asparagus growers. Norton pioneered the combining of plant breeding and plant introduction in this job."

"How's that?"

"I wasn't technical enough for you," grinned the Old Timer. "He combined genetics and plant introductions—assembled from all over the world all the different kinds of asparagus he could get, and went on from there. Everybody's doin' it now, but in 1910 it was an eye opener. Now we sometimes send plant explorers out to get a single plant—one that contains the heredity stuff, genes—that the plant breeder needs. The plant may be commercially worthless but it is possible to transfer its desirable qualities—disease resistance and so on—to commercial sorts that need them."

"That's right; they're doing it right along. I take dictation about such work every day or so," agreed Mary Louise. "But why not Martha Washington? Why Mary?"

"Norton gave his male plants surnames like Washington, Wilson, and the like. His female plants he named Edith, Mary, Martha, and so on. Thus a hybrid between Martha and Washington became Martha Washington. In the long run, however, Mary Washington proved the best of the lot. It's still No. 1 after 35 years. It's so good that it's even grown in regions where its disease resistance is superfluous. The late H. J. Webber once said that Norton's BPI Bulletin 263, Methods Used in Breeding Asparagus for Rust Resistance, describes the most perfect system of plant breeding ever devised!"—JOHN A. FERRALL, PISAE.

Hugh Hammond Bennett: You might call the January issue of Soil Conservation the Hugh Bennett Number. By all means get it from Soil Conservation Service and read all about Hugh Bennett Conservation Day, Wadesboro, N. C., including Dr. Bennett's reminiscent address, A Dream Coming True. Wellington Brink has a fine picture spread, and as good as anything is the item called "If You Fail, We Slump," by Sim Bennett, whose father was a slave and who grew up on the old Bennett plantation at Gould's Fork Creek, N. C. Don't miss this great issue of a fine monthly.

Cleveland

BETWEEN-TRAIN time enabled the editor recently to make an extremely rapid series of visits to USDA people in Cleveland. W. F. Walsh, of Entomology and Plant Quarantine, was a little too far out for access on this quick round-up, and County Agent H. S. Ward was out on business when we came in without previous appointment. However, we had the pleasure of meeting and talking with all the following:

L. E. Ide, of Fresh Product Inspection and Standardization, Production and Marketing Administration, F. S. Nightingale, Market News and Grading Division, of the same agency, E. C. Maxeiner, of the meat grading service, B. F. Platt, in Packers and Stockyards, Dr. M. M. Woods, Bureau of Animal Industry's inspector in charge, and George W. Nichols, of the Cuyahoga County Agricultural Conservation Association. Circulation and distribution of *USDA* appeared satisfactory everywhere and no complaints were registered.

Milk

IN A recent speech the Secretary mentioned that milk production was 15 percent above prewar, fluid milk consumption up 26 percent, dairy prices up 140 percent, and income to dairymen up 175 percent. Per capita consumption of milk broke sharply with historical patterns during World War II, due mainly to awakened interest in nutrition and to the fact that dairy prices rose more slowly than national income. Can this new level of milk consumption be maintained and expanded?

Between the world wars milk production remained high. You can't just shut down a plant and send the cows home; nor can milk be stored like cotton or machinery, so farmers sold milk at whatever price it would bring. Fortunately per capita consumption remained high, year-to-year changes averaging less than 1 percent. The prices of dairy products and the income of nonfarm people rose and fell together. Even when national income took a nose dive, 1929–33, per capita milk consumption declined only 2 percent, though prices dropped 27 percent. There was little increase in consumption in the thirties when prices and incomes rose.

But World War II enabled people to consume more milk than ever, though we still do not know how much milk our people could consume under long-time full employment during peace. Top-income families (over $5,000 a year) consume only three-fourths as much milk as they need, however; middle-income families ($1,000–$3,000) only about half, and bottom-income families (less than $500) only a fourth. Expanded school-lunch programs will help this picture. The 1947 national goal is 122 billion pounds of milk, as compared with 119 expected last year, and a high of 122 in 1945. More can be done. More milk can be produced and sold. It would boost the national health.

Ithaca gleanings

A BACK-TO-THE-FARM movement is on in New York State, but home seekers rather than soil tillers appear to be responsible for it. Prof. Herrell DeGraff, of Cornell College of Agriculture, says that most of these new farmers will have little effect on the State's economy, for most of them have city jobs and will produce little more than gardens. Many veterans who first tried to remain in cities now tend to drift back to farms, after finding city life less rosy in reality than in dreams. But city men have poor chances of success as farmers if they lack experience. There is no appreciable change in the downward trend of New York's rural population since 1900.

Irving B. Stafford is SCS State Soil Conservationist for New York. His office is at Ithaca. New York's soil erosion is less spectacular than that of many States, hence much educational work is required to get farmers to realize its menace. But once even a small gully forms they are quick to seek assistance. The work is being impeded by lack of equipment; many farmers right now are eager to pay for work which cannot be done. An interesting finding in Soil Conservation Service nurseries is that grapes grafted on certain types of hardy roots give tremendously increased yields on rather badly eroded, hilly soils. Stafford says that the soil conservation work goes well as a whole, new districts being formed by farmers all the time.

R. Tyler Space, who has been designated State Director of Farmers Home Administration for New York, has his office on the seventh floor of Ithaca's tallest building. He stressed, among other things, the fact that lack of secretaries, stenographers, and typists tended to bottleneck many county supervisors' offices where the work was heavy. Cooperation with other USDA agencies is all that could be desired. The State office will undergo expansion when the seed loan people move into it soon.

Brief but important

Staff meetings: Budget and Finance Staff Administrative Memorandum No. 133, December 3, sets forth office policy concerning staff meetings. The policy, worked out by the Department Management Improvement Committee, includes types, conduct, frequency, and length of meetings, organizational unit, agenda topics, supervisory and employee meetings, and follow-through. For details get the memo from B & F, phone 2727.

Experiment station research: Research ever progresses at the State experiment stations. Wyoming reports two different methods of inoculating potato tubers with ring rot to find out how this disease spreads. Prof. H. J. Sefich, of Clemson, announces the production of a new type muscatine grape culminating 40 years of research. Colorado A. and M. College station has developed a pascal celery already worth several thousand dollars to the Denver and Canon City celery-growing districts. The Cornell station announces a relationship between vitamin B_2 deficiency and the number of lice on livestock, while New Jersey has discovered and named a new variety of native holly located on an estate near Red Bank—which should be available commercially in a few years.

West Indies News Digest: This oddly interesting little mimeographed item, prepared by the Labor Branch, Production and Marketing Administration, from West Indies newspapers, etc., gives piquant information about the Jamaicans, Bahamians, Barbadians, and others who gave us such excellent wartime assistance as farm laborers.

National Garden Planning Week: This is February 2–8; June 9–14 will be National Home Food Preservation Week. Mobilization for action on the 1947 garden front took place at the National Garden Conference December 5–6, 1946. Let's keep gardening alive this time, not let the custom die out as it tended to after World War I.

Office for Alaska: Secretary's Memorandum No. 1181, December 9, 1946, announced the appointment of Assistant Secretary Brannan to function as General Departmental Officer for Alaska. He will establish such interbureau or other departmental committees, and utilize such means as he deems necessary, to aid him in coordinating USDA activities in this Territory and in otherwise accomplishing the objectives set forth in the memorandum.

Diet and cancer: This Month in Rural Alabama, for December 1946, reports that nutrition scientists D. H. Copeland and W. D. Salmon, of the State experiment station, have caused cancerous growths in rats by feeding them choline-deficient diets. Choline is a relatively simple organic base sometimes classed as a vitamin. Known as an important body constituent for years, its nutritional importance has been recognized only during the past decade. It occurs richly in egg yolk, brains, liver, kidney, ovaries, and heart. Milk is low in choline but rich in the amino acid, methionine, which can act as a capable dietary substitute.

Veterans preference: Office of Personnel Circular No. 29, Revision II, on this subject was issued October 31, 1946. The revised circular, bringing the subject matter up to date, went out with a covering memo from Director Reid dated November 6.

Dutch elm disease: Scientists at the Connecticut Agricultural Experiment Station at New Haven—Drs. James G. Horsfall and A. E. Diamond—believe that, by feeding oxyquinoline benzoate into the root system of a tree, they enable it to combat poisons liberated by the fungus causing Dutch elm disease. This chemotherapy prevents wilting in some as yet unknown way. It may also act preventively. It will take about 20 years fully to test the treatment, but if it works it will have untold value in saving historical trees and elms generally.

Fruit-drop control makes steady progress: Year-by-year control of premature fruit drop is better and better because of USDA research. Various growth-regulating substances are used in spray form, some being better for one and some for another fruit. Thus, 2,4-dichlorophenoxyacetic acid works fine for Winesap and Stayman Winesap apples, if you can remember the name. If not, call it 2,4-D. Cases are on record where 6 times as many apples blew from untreated as from treated trees during windstorms.

Balance sheet of agriculture: The speech of Norman J. Wall, Bureau of Agricultural Economics, before the American Bankers Association at Louisville, Ky., November 14, 1946, is packed with information on Current Economic Developments and the Balance Sheet of Agriculture. For one thing, the tide of farm-mortgage debt has again turned upward. You can get copies of the talk from Economic Information, BAE (phone 4407). Secretary Anderson commented on the farm real-estate situation on December 12 (ask Press Service, Ext. 6114, for 2683), noting that land values had risen another 14 percent during the past year and were now within 11 percent of the 1920 inflationary peak. He warned against dangers of purchasing land at inflated prices, said the volume of voluntary sales was abnormally large, and cited a considerable increase in farm debts contracted to buy land.

Ernest N. Cory was elected president of the American Association of Economic Entomologists at the fifty-eighth annual meeting in Richmond in December. He has headed the Department of Entomology for University of Maryland since 1914; he is a graduate of Maryland, did postgraduate work at American University, has long been Maryland's State entomologist, and functions in addition as its assistant director of extension. Nice guy; we were going to Maryland when he was.

Insects try modern transport: S. A. Rohwer, assistant chief, Bureau of Entomology and Plant Quarantine, told the economic entomologists at Richmond, in December 1946, that high-minded insects which hitch hike from one part of the earth to another in airplanes offer a constantly increasing menace. Quarantine officials in all countries are aroused to its dangers and seek to meet its challenge. So far there are no known infestations of foreign insects arriving by plane, but only close control has prevented this. You will find details in release 2677; write or call Press Service, 6114.

The Roaming Reporter of the Syracuse Herald-Journal, issuc of December 3, put a strong stamp of approval on the members selected for the 11-man advisory board who, under Secretary Anderson's chairmanship, will help carry out the provisions of the Research and Marketing Act of 1946. We read: "Everyone at all familiar with American agriculture will agree that Secretary Anderson has chosen wisely. If any group can aid in making the proposed program successful, this one can."

Detroit and Cleveland offer considerable contrast in the matter of USDA Club activity. Detroit, with some 56 Department employees, has quite an active club, which meets enthusiastically on call and produces an audience eager to hear what it regards as a good speaker. Cleveland, with from 78 to 100 employees to draw on, has no club; its Department workers apparently do not care enough to meet together to put themselves out. Yet the formation and regular meeting of USDA Clubs is ideal for informing each worker about what the others do; it promotes efficient public service and is perhaps more important now than ever. Write or phone Barney (E. R.) Draheim, Office of Personnel, Department of Agriculture, Washington 25, D. C., for information on the formation and operation of USDA Clubs. Get together and form them wherever even two or three of you are gathered together.

Forest fires: In December 1946 American Mercury, Stewart H. Holbrook, writing under the title "The Great Tillamook Fire," presents the mordantly dramatic horror of such conflagrations and their aftermath so effectively that you should read it by all means. The Tillamook fire took place in western Oregon in 1933; it covered 310,000 acres and destroyed sufficient timber to have supplied our entire 1932 needs. Worse still, in 1945, the vigorous second growth then starting to replace the ashes and desolation was burned on 150,000 of the same acres. Holbrook fascinatingly presents the terror of such holocausts and the hazardous drama of forest-fire fighting.

Maurice M. Samuels, a member of Rural Electrification Administration staff since 1938, has become consulting engineer on Administrator Wickard's staff. He is succeeded as chief of the Technical Standards Division by James Bernard McCurley, Jr., who comes to REA from the Navy Ordnance Laboratory. There McCurley directed a staff of engineers engaged in developing new methods and techniques, as well as special test equipment, in connection with the VT fuse and its components. Earlier he spent 6 years in the Navy. He took his bachelor's and doctor's degrees in engineering at Johns Hopkins, his master's at Yale.

"Lee" Kneipp has retired: He (his full name is Leon F.) was for a quarter of a century in charge of land acquisition and planning for Forest Service. His successor is Howard Hopkins, former Chief of the Division of Private Forestry. Kneipp is the oldest active FS officer in both age and service. Born in Chicago in 1880, he was appointed as a ranger May 8, 1900. He received a succession of promotions and was an authority on outdoor recreation. His successor has held various FS posts during the past 23 years.

DDT, airplane, exit gypsy moth: To find out how R. E. Sheals, in charge of Gypsy Moth Control Program for the USDA, reduced per acre control costs 90 percent by a method that promises extermination of the moth, get and read release 2668 from Press Service; phone 6114.

New ribbons for old: A present subscriber, formerly in the Forest Service, writes: "Typewriter ribbons respond to lubricants much as humans do, mature and immature. So if constant punching has pounded the brilliance out of your ribbon, don't prematurely discard it. Moisten it with a few drops of typewriter oil in the evening and see how bright it will be next morning, responsive to the lightest touch. Give it a chance to live out its normal life in fadeless service, dependent upon good behavior."

Foreign Service: Under the new expanded Foreign Service provided by the 1946 Foreign Service Act, the Department is represented on the Board of the Foreign Service and the Board of Examiners for the Foreign Service by L. A. Wheeler, Director of the Office of Foreign Agricultural Relations, and A. Rex Johnson, Assistant Director, as alternate. Substantial effort is currently being made to establish, under the new act, a Foreign Service of the United States in lieu of a service of a single department.

A lecture series in the social sciences will be established at University of Wisconsin as a memorial to the late Leonard A. Salter, agricultural economist, and his wife. At 34, Salter was one of the Nation's leaders in his field; a native of Connecticut and a graduate of its State university, he completed postgraduate study at University of Wisconsin and was to have received his doctor's degree there the past summer. He went to Wisconsin after serving in the USDA. He, his wife, and child died in the Hotel La Salle fire, Chicago, June 8, 1946.

Research results: Research Achievement Sheet No. 64 reports on improved prefabricated grain bins for long-time storage on farms. These bins wear well and prices and operating costs are much less than charges for commercial storage. Loss from grain spoilage has been very slight. The estimated cost of this research was $25,000, but savings in 1940 amounted to $1,250,000. The Division of Farm Buildings and Rural Housing, Bureau of Plant Industry, Soils, and Agricultural Engineering, has blueprints and photographs. Sheet No. 69 says chemical dips developed by PISAE prevent sapstain losses in green lumber. Chlorophenates or very dilute solutions of organic mercuricals, or the two together, were found most effective in controlling sapstain, a discoloration of unseasoned wood caused by fungi and often followed by decay. This discovery, under peacetime market conditions and prewar prices, effected savings of some $4,000,000. Interested industries and lumbermen contributed to the costs of the work.

Office of Hearing Examiners: This Office was established by Secretary's Memorandum No. 1180, December 9, 1946, under a Chief Hearing Examiner, who will report to the Secretary. Earl J. Smith was designated, acting. Certain functions of the Office of the Solicitor were transferred to the new office. Procure the memorandum from the Secretary's Office for details.

J. A. Fitzwater, FS, retires: Joseph A. Fitzwater, Chief of the Division of State Forestry, Forest Service, since 1939, retired December 31 after 40 years of service. Born in 1884, he graduated from Yale Forest School in 1908 and later received a Master of Forestry degree. He entered the old Bureau of Forestry in 1902 and FS in 1908. As supervisor of the Superior National Forest, Minnesota, and of the Pend Oreille National Forest, Idaho, as assistant chief of silviculture for Region 1 in Montana and for Region 2 in Utah, as forest inspector in the Division of Timber Management, and in other capacities in both Washington and the field, Mr. Fitzwater has made valuable contributions to technical forest management.

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USDA

FOR FEBRUARY 3, 1947

Kettering

C. F. KETTERING is a member of the National Advisory Committee for the Research and Marketing Act of 1946. He is also vice president in charge of research for General Motors. As retiring president of the American Association for the Advancement of Science he delivered an excellent address in Boston, December 27, 1946, on The Future of Science. (See Science of that date.) Two or three things he said are of special interest to us. Speaking of food, for instance:

> Only 25 percent of the 2,000,000,000 people of the earth are properly nourished. Only 500,000,000 ever get enough of the proper food. This is not because of natural limitations. We have the scientific knowledge to provide an adequate diet for everyone if the information were properly applied. The false barriers erected by man himself are responsible. The antiquated social systems, ignorance, stupidity, and fear prevent a large percentage of the peoples of the world from enjoying even the most fundamental of the benefits of science.

With reference to soil depletion he said: "I believe that, if necessity demands, we can turn to our inexhaustible supply of minerals in the sea for all the plant food we will ever need to keep our farm land productive, just as we have gone to the air for nitrogen." He then detailed the enormous quantities of various mineral elements the sea contains. Finally he emphasized that it took generations to solve many research problems, saying:

> Research must be started years before the results come into general use. Many things, started as such 100 years ago, have just recently come into use. Work on synthetic rubber started back in 1826, when Faraday helped to establish that the chief constituent of natural rubber was a hydrocarbon. In 1860 the English chemist, Williams, isolated isoprene from rubber. It was not until World War I that synthetic rubber was produced in small quantity. Continued research produced the synthetic rubber necessary for our use in World War II. It has taken 120 years for the results of research, inventions, and discoveries in the field of synthetic rubber to be brought into general use.

Read the entire address if possible.

So you want to write

SO MANY people want to write for publication. So many Department people have to write as part of their jobs and want to do it better. So often they query those they regard as successful authors to ask how they accomplished the miracle. But if they mean successful in a monetary way they can easily query the wrong writers, for instance the editor of *USDA*, who writes plenty but never mastered the art of making money at it.

At last, however, a book has appeared from Charles Scribner's Sons in New York which will enable these searchers to find their answers. It is entitled "Writers and Writing" and is by Robert van Gelder, of the New York Times. In it the author publishes brief interviews with 90-odd top-flight writers among his 1,500 acquaintances and friends in the writing game. These subjects of interview, mostly big money makers, tell how they go about writing.

To whet your curiosity, some of them can work only an hour or two a day; 4 or 5 hours seems to be about the best any can do, except a few who work 12-hour stretches or even longer. Some rough out on cheap paper and throw away first drafts; some make first drafts full of blank spaces and fill these in later. Some almost endlessly polish; others send their first draft to the printer almost unaltered. Some demand quiet, some demand noise; some cannot stand the country; some require an old graphophone record grinding raucously away before they can work.

Many start on easy work, rewriting what they did yesterday, to get them going. Nearly all say they despise writing and will doodle at anything else to get out of it, but a few love writing. Some drink heavily; some none at all. Some say that a writer should not read and should know nothing; some that he should read and know everything. All told it is pretty confusing, but if you want guidance from successful writers, here it is. Pick out your ideal author; read about him or her and do likewise. Incidentally, you'll find that George Jean Nathan attended Cornell at Ithaca; also if you read page 169 closely you'll discover something about Frank George, Production and Marketing Administration.

Dicumarol

UNDER the title "Science Weaves Another Miracle," Marjorie Sacks does a beautiful job on the discovery of this new drug, in which Dr. Karl Paul Link, Wisconsin Agricultural Experiment Station, had a very large part. The article originally appeared in Hygeia, but Reader's Scope for January carries an excellent condensation.

The trouble started when cows began to find, in spoiled sweet clover, something that made them bleed to death on the prairies of North Dakota and adjacent Alberta. The clotting power of their blood progressively declined and then fatal hemorrhage set in. The disease was variously diagnosed but finally it was decided that badly cured sweet clover contained a substance which produced it.

This substance Dr. Link crystallized and identified, with the assistance of H. A. Campbell and a research team. The anticoagulant substance was named dicumarol and it imparts a characteristic odor to spoiled sweet clover. In a few months Charles F. Hueber and Mark Stahmann managed to accumulate a teaspoonful of the material. Later dicumarol was synthesized and it was shown that vitamins A and C counteracted its effect.

Mayo Clinic took notice at this point and tested the drug on dog's blood, and then on 70 cases of pulmonary embolism, caused by blood clots, in human beings. The results were highly beneficial; all but two recovered. Equally favorable results were gotten elsewhere and the drug also proved effective in thrombosis of veins in the legs, caused by formation of blood clots which the drug liquefied and rendered harmless. However, the drug must always be used with greatest care and under a physician's direction as careless usage can produce fatal hemorrhage. Again, as in streptomycin, we have a case where agricultural research performed a miracle for medicine.

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has been assistant traffic director of the District of Columbia since 1927. A native of Tennessee, he was educated at the University of that State and at George Washington. One of the editor's student recollections at the then Maryland Agricultural College was Eldridge lecturing on how the automobile would toil the knell on macadam roads.

Swenson comes to Washington: Big bluff Theodore L. Swenson, Director of the Western Regional Research Laboratory—who somehow infects entire agencies with his genial competence—has been brought to Washington as special assistant to Dr. Louis B. Howard, Chief of the Bureau of Agricultural and Industrial Chemistry. He has directed the western lab since its creation and will be succeeded there by Dr. Michael J. Copley, capable head of the Analytical and Physical Chemistry Division of the eastern lab, who took degrees at Catholic University and the University of Illinois. Swenson, a graduate of Washington State, has been in AIC for 17 years. His new position was created to improve and if possible expand the utilization of farm crops and products in processed foods.

Research and marketing committees: E. A. Meyer, Administrator of the Research and Marketing Act of 1946, asked some 250 national producer and commodity organizations to nominate, by January 6 if possible, members of the commodity and functional committees to be established, as recommended by the National Advisory Committee for the act, which met in December. Requests for nominations were for 17 commodity committees—livestock, dairy, poultry and poultry products, citrus fruits, deciduous fruits, vegetables, potatoes, nuts, grains, feeds and seeds, rice, dried beans and peas, cotton, wool, tobacco, peanuts, and soybeans and flaxseed—and for 4 functional committees—transportation, storage, packaging, and foreign trade.

Hark the lively dinosaur! In the course of locating the Caracas Mesa timber access road out in Forest Service Region 3, two fairly well preserved dinosaur tracks were found in a formation of the Cretaceous Age—rather rare find, they say. For your information, such tracks are usually found in the Morrison formation of the Jurassic Age. The tracks discovered were 3-toed, 16 by 20 inches; dainty little thing, the dinosaur.

H. B. Boyd, Director of Price, Production and Marketing Administration since spring 1944, resigned December 27 to enter private industry. Boyd originally joined AAA in 1933, coming to Washington from the Connecticut and Massachusetts tobacco program a year later; he remained in AAA until May 1942, when he became vice president of Commodity Credit Corporation; he was later assistant director, Office for Agricultural War Relations, assistant to the Associate Director of War Food Administration, and Deputy Director, Office of Production. A native of Canada who grew up on a grain farm, Boyd graduated from the University of Saskatchewan in 1923, with a B. S. in agriculture, and worked in the university and in the provincial government for some time before taking his Ph. D. in economics and marketing at Cornell, 1926–29.

FS wood expert retires: R. K. Heiphenstine, outstanding expert on wood and its uses, has retired after 41 years of service. Mr. Heiphenstine, who was born in 1882, is a native Washingtonian who as a boy sold newspapers on the capital's old-time, horse-drawn street cars. In 1904 he was appointed a stenographer-typist in the Forest Service. Nine years later he began technical investigations of forest products. He has completed studies of the use and manufacture of lumber in over 50 different classes of woodusing industries, and conducted research in the manufacture, grading, inspection, storage, and use of lumber and other forest products. Since establishment of the Technical Committee on Wood Preservation of the Federal Specifications Board, he has been its chairman. A hobby of his is antiques. His home is in Chevy Chase, Md.

Morse Salisbury, former chief of radio and Director of Information for USDA, recently became assistant to Secretary General D. A. FitzGerald of the International Emergency Food Council (successor to the Combined Food Board) in Washington, D. C. Since leaving the Department he has been with UNRRA and later with the Committee on Economic Development; he also saw brief service with the Famine Emergency Committee.

Did you know that in 16 States and any number of counties rural homemakers (housewives to you) donate thousands of dollars to make it possible for 4-H Club members or other rural girls to study home economics in college? Funds are set up, sometimes memorializing individuals, loans are made for scholarships, and graduates repay the loans after getting established in life.

Talking and learning: It was a wise man who prefaced his speech with the remark that it would not be long because, said he, "I have found out by experience that I seldom if ever learned anything while I was talking." You just have to listen to learn.

Farm wages: British journals indicate that farm owners in the United Kingdom would not object to paying their hired labor the equivalent of $50 a week, *if they would only do the work.* The difficulty is not the wage but the fact that farm workers simply do not want to get on with the job over there.

On Being Country Minded, by E. R. McIntyre, Office of Information, is an article in The Land for Autumn 1946, to which your attention is invited. McIntyre produces a weekly letter to farm-paper editors. He confesses to having a country mind himself, "one that has been ventilated and insulated and thus escaped some of the contagion and false attitudes of the moment."

Carnivorous man: In his latest (almost) book, Not by Bread Alone (Macmillan, New York), Vilhjalmur Stefansson again defends his thesis that a purely carnivorous diet is a healthful one for man in Tropic, Temperate, or Arctic Zone. In an introductory note Dr. Eugene F. Du Bois explains that active hunters in many parts of the world subsist on nothing but a small subdivision of No. 5 in USDA's "Basic Seven" food groups, while strict vegetarians exclude Group 4 and butter in Group 7. Stefansson is as always readable and stimulating.

Robert L. Pendleton, Office of Foreign Agricultural Relations, has been appointed professor of tropical agriculture and soils at Johns Hopkins; he will spend the fall semester there, the remainder of his time with FAR. The post is in the university Department of Geography.

Reuben Brigham memorial: In accordance with Reuben's wishes the family buried his ashes in his rose garden at his home, Glyndon, at Ashton, Md., and plans to develop a living memorial to him by growing spruce and boxwood trees there. Contributions for floral tributes were turned to this purpose when contributors understood the family's wishes.

REA extension specialist: H. S. Pringle has been appointed by Rural Electrification Administration to serve as liaison officer with Extension Service, both in the Washington office and in the States. He will aid in developing REA extension programs and materials. Pringle served several years as rural electrification extension specialist in New York State, but, since 1942, has been with War Production Board and Civilian Production Administration in Washington. He will deal with all phases of rural use of electric power.

Citizenship in a World Community: Extension Director M. L. Wilson's talk by this title, given before the National 4-H Club Assembly in Chicago, December 2, 1946, was an excellent presentation of the topic. Copies are available from Extension Information; write or call 6283.

Don't take this example: On February 2, 1917, the present editor of *USDA* addressed a letter to a friend in the Canary Islands. On October 30, 1946, the recipient sat him down and typed a reply, which reached the editor December 20 the same year, after having gone to several cities and a host of ancient addresses. The reply made no mention whatever of a 30-year time lapse. *Don't take this example; reply to all correspondence promptly*—the same day the letter comes in, if possible.

Photographic organization chart: In connection with what was said about such charts in *USDA* December 9, page 4—Forest Service already has one. Employee Counselor Elizabeth Puryear is responsible and it's a honey.

His Royal Highness, Amir Saud, Crown Prince of Saudi Arabia, was a recent visitor to the Agricultural Research Center, Beltsville, Md., where his host was Secretary Anderson. The royal visitor is observing farm practices in several parts of the U.S.

Sam Reck, New Jersey extension service, was the interested recipient of a February Farm Journal, containing his readable article on Sky-Dusting Headaches, while we visited him recently. Meanwhile Louis Brackeen of Alabama and Herb Graham of Oklahoma made the Country Gentleman, and Hadley Read and Dutch Elder, Iowa, and also Herb again, appeared in Successful Farming—both in January issues. These boys can not only tell others how to write; they do a good job of it themselves, though Sam admits that at least one of his specialists can sometimes tell him how to write, too!

Newcastle disease research program: A coordinated Federal-State research program on Newcastle disease was formulated by a conference of Federal and State workers called by Bureau of Animal Industry and held recently in Baltimore. For details get release 2678 from Press Service; phone 6114.

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U.S. DEPARTMENT OF AGRICULTURE

USDA

FOR FEBRUARY 17, 1947

President on agriculture

IN HIS State of the Union message to the Eightieth Congress, January 6, the President commented on our vastly increased food production in 1946, saying: "Much of our tremendous grain crop can readily be sold abroad and thus will become no threat to our domestic markets. But in the next few years American agriculture can face the same dangers it did after World War I."

He then related how the farmer could not at that time adjust his acreage to peacetime demand, whereupon production remained high, surpluses accumulated, and disaster followed. "We must make sure of meeting the problems which we failed to meet after the first World War." Present laws stabilize farm prices for 1947–48, during which period we must maintain and develop markets for our great productive power.

The purpose of the laws is to effect an orderly transition from war to peace. But the Government's price-support plan was not designed to absorb the unlimited surpluses of a highly productive agriculture at great cost. The stage for permanent farm welfare can be set only after these guarantees expire; the farmer is entitled to a fair income.

"Ways can be found to utilize his new skills and better practices, to expand his markets at home and abroad, and to carry out the objectives of a balanced pattern of peacetime production without either undue sacrifice by farm people or undue expense to the Government."

Federal crop insurance: If interested in this subject, you are strongly advised to secure release 32 from Press Service, Secretary Anderson's letter to Congressional and farm leaders, and his letter to Gus Geissler, Manager of the Federal Crop Insurance Corporation, on the status of the program and changes necessary therein. The letter is straightforward, revealing, and easily understood. Write or phone 6114. This is an important policy statement.

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Peacetime farm plant

THE SECRETARY in a recent speech likened the Nation's entire farm plant to a single farm operated by a single farmer. Then, with average weather, that farmer can produce over a fourth more products to sell than before the war; if the weather is good, he can do a lot better than that. Yet he has only about 103 acres of cropland for every 100 he had before the war.

He doesn't have as much help as he had before the war, but he has more machinery, is using 85 percent more fertilizer and 3 times as much lime, has better crop varieties and insect control, and feeds his livestock better. He's still producing most commodities at about the rate he was at the war's end, but he knows that markets are changing, that there are more changes ahead, and that his production pattern also must change.

He can't just throw a switch and stop his production line, though. He can't throw away his improved machinery or his improved cultural methods, varieties, strains, and techniques. He can't very greatly change the area of his farm, so he must keep on producing, even if the pattern is different. Population has grown 8 percent since prewar days and people are consuming 15 percent more food per capita, meaning a 25-percent larger domestic market.

Right now the farmer is producing for an abnormal foreign market that may soon end. Yet commodities like wheat and cotton must have export outlets greater than they had before the war. Market demands will match the farmer's enhanced productive capacity only if we have reasonably good foreign outlets, full employment at home, the kind of farming that conserves soil resources, and continuing development of new uses for farm products. If agriculture now had to depend on a domestic and foreign market of prewar size, it would face ruin.

Awards for ideas

EXECUTIVE ORDER 9817, issued December 31, 1946, gives regulations governing awards to Federal civilian officers and employees for meritorius suggestions and service. The regulations, provided for by section 14 of the act of August 2, 1946 (Public Law 600, Seventy-ninth Congress), authorize cash awards for suggestions which, in the opinion of a Department head or other authorized authority, results in such improvements as monetary savings, increased efficiency, conservation of property, improved working conditions, and better service to the public. The order is effective as of August 2 last year, and former civilian officers or employees (or their estates) are eligible for awards for suggestions made while in the Government service.

When a suggestion is adopted primarily because it results in monetary savings, the amount of the award is based on the annual estimated saving in the first year of operation, as follows:

Savings of $1–$1,000—award of $10 for each $200 of saving with minimum of $10 for any adopted suggestion; savings of $1,000–$10,000—award of $50 for first $1,000 of saving and of $25 for each additional $1,000 of saving; savings of $10,000–$100,000—award of $275 for first $10,000 of saving and of $50 for each additional $10,000 of saving; savings of $100,000 or more—award of $725 for first $100,000 of saving and of $100 for each additional $100,000 of saving, the maximum award for any one suggestion (except for War and Navy Departments) not to exceed $1,000.

A Department head may set a different amount (subject to the limitation) for the foregoing awards, and may also determine the amount of an award for suggestions resulting chiefly in improvements in operations and service.

Information about USDA

PLEASE *write; don't phone.* Our staff has shrunk. Miss Glick has moved to New York. The *USDA* documents can still be had, but we can no longer handle phone orders for them. Please therefore write the simplest, most legible memorandum you can, *in field or in Washington,* telling us what quantity you want of what numbers (Nos. 1 to 10), affix your name and *your bureau or agency,* and send by regular mail. Do *not* give us your room number. Your mail and file room knows what room you are in.

These mimeographed documents so frequently mentioned herein give the facts about the structure, functions, and history of USDA and its agencies; USDA's wartime achievements, top officials, its

leading scientists and their outstanding discoveries; the laws that govern what the USDA does; and biographies of all who have headed Government agricultural work from 1836, up to and including the present Secretary. You can get a list of the documents by writing in, or see *USDA* January 6, page 2.

So please do not phone. Simply write an informal note to the Editor of *USDA*, Office of Information, Department of Agriculture, and *send it by regular mail*, for we even lack facilities now to send out specials. However, your written orders will always be honored and filled just as soon as we possibly can fill them.

End of hostilities

ON December 31, 1946, President Truman proclaimed "the cessation of hostilities of World War II." In a press release issued the same day, the Department outlined the effect of the President's proclamation on agriculture.

The proclamation had the effect of setting the terminal date of the principal wartime price-support programs for December 31, 1948. On the same date restrictions on the disposal of cotton by the Commodity Credit Corporation, as prescribed in the Agricultural Adjustment Act of 1938, again become operative. The proclamation has no effect upon War Food Orders, making of subsidy payments, or monthly certification of commodities in short supply.

Procure the press release (2809)—write Press Service or phone 6114—for details.

Snow man

IN *USDA* for June 10, 1946, we had occasion to write about J. E. Church, the Nevada Agricultural Experiment Station meteorologist who gained international fame in the field of snow surveying. We also mentioned him once or twice thereafter, in connection with his cluttered desk and grave courtesy.

Now he sends us a clipping from the December 21, 1946, Reno Evening Gazette, which carries his picture and announces that he is to organize a snow-survey and stream-flow forecasting system in the Himalayan Mountains for the Government of India, to which he is on loan. The Gazette speaks of him as "father of the snow survey." His trip to India began February 1.

In an accompanying letter he begged us not be startled by his mobility and agility, and said that a snow motor was being built to penetrate the watersheds of The Himalaya, where neither sleds nor skis will do the trick. Later he may have to get a helicopter or will endeavor to grow wings, because some mighty high and inaccessible spots must be explored.

He concluded: "The Government of India has approved of a reconnaissance by plane of The Himalaya in order to determine the most feasible snow-survey sites and approaches to them. The Government desires ultimately to establish a snow-survey system throughout the length of The Himalaya. When will snow surveys be started in Tibet at the source of the Yangtze and in Iran and Korea?"

If he's asking us our answer is: When Dr. Church chooses to get around to it. Here we sit still in an office chair and he gallivants all over the Himalayan Mountains, just as if he were in his twenties again. Moreover we do accuse him of giving the Gazette a picture that makes him appear a bit younger than he actually is!

Make 'em read it

VERNON VINE is back at his old stand for once, in News for Farmer Cooperatives, January 1947, a monthly issued by Farm Credit Administration. He discusses co-op membership publications, but has good advice for all writers and editors. Says he: "What makes a good membership publication? The answer is shorter than the question. Readership." If the publication isn't read, it doesn't click. But how to achieve readership?

Four colors and the prose of Hemingway will not alone solve the problem, for the material in the publication must hit the reader's interest. The title? Would you read an article called "Some Factors Affecting the Seasonal Marketing of Mold-Damaged Dehydrated Widgets" as readily as you would one entitled "Why Some Widgets Bring Only a Dime a Dozen"? Would you? Would you prefer 300 words on widgets, if they covered the subject, to wading through 3,000? Big or small type? Pictures or not? Are you interested in widgets at all? The editor must consider all these points and more.

Then Vernon says build around people, personalize your stories, use freely Rudolf Flesch's Art of Plain Talk (Harper & Bros.) and How Does Your Writing Read? (Government Printing Office), Avoid pompous trade jargon, or even the plain pompous; avoid "officialese" like poison. There is more to the article than that. In fact, the article is rather too long, Vernon. But if *you* are interested in the subject matter sampled herein, procure your copy from Farm Credit Administration, USDA, Washington 25, D. C.

Reduction—separation

THE FOLLOWING facts, garnered from Director of Personnel T. Roy Reid, may prove of interest. Reductions in force result from discontinued or reduced appropriations, reorganization or abolition of jobs or units, setting of personnel ceilings by the Bureau of the Budget, or completion of Department programs or projects. If separations become necessary, rigid Civil Service Commission rules are followed, the first step being the preparation of a reduction-in-force list containing the names of all employees within a predetermined geographic area, who are at the same grade level and occupy similar jobs.

First employees separated are temporary appointees; next come war-service appointees and those appointed since March 6, 1946; last come permanent employees. A person's place on the separation list is determined within these groups by veteran preference, efficiency ratings, and length of service in the Government. Each employee to be separated receives a notice at least 30 days in advance and may examine the reduction-in-force list to assure himself things were carried out according to rule; if dissatisfied, he can appeal to the Civil Service Commission. Of course, if possible, the Department places a good employee elsewhere or offers a job at a grade demotion in lieu of separation.

On the other hand, an employee may at any time be *removed* from the service for such cause as will promote efficiency of his agency. *Removal* implies delinquency or misconduct; *unsatisfactory service* applies to the quality and quantity of work performed. Employees receiving an unsatisfactory efficiency rating must be separated, reassigned, or demoted to jobs they can handle satisfactorily. During his probationary period, of course, an employee can be removed without preferment of charges, for that period forms an integral part of his examination.

After that he cannot be removed unless charges are preferred against him in writing and he is given time to reply to them in writing. He is not, however, entitled to a trial or hearing, or to the

examination of witnesses, except at the discretion of his agency head. If removed, he cannot appeal to the Civil Service Commission, in lack of veteran-preference rights under the act of 1944, unless he can establish that the required procedure was not followed, or that his removal was for political or religious reasons, or resulted from discrimination because of marital status, sex, creed, color, or national origin. Veteran-preference rights permit a removed employee to appeal.

Professional employees

ON January 7 the Organization of Professional Employees of the Department held its eighteenth annual meeting. It was organized in 1929 to study problems affecting the welfare of scientific, professional, and administrative employees, to cooperate with officials in promoting efficiency of personnel, and to represent their interests before Congressional committees and other agencies. A. F. Woods, Director of Research, was the first president, and on the first Executive Committee with others were Milton Eisenhower, Director of Information, W. W. Stockberger, Director of Personnel and Business Administration, and H. G. Knight, Chief of the Bureau of Chemistry and Soils. At the January meeting the council (elected in December) chose the Executive Committee for 1947 as follows:

Melvin C. Merrill, Office of Information, President; George A. Collier, Production and Marketing Administration, Vice President; Walworth Brown, Office of Experiment Stations, Secretary-Treasurer; Curtis P. Clausen, Bureau of Entomology and Plant Quarantine; Eugene A. Hollowell, Bureau of Plant Industry, Soils, and Agricultural Engineering; Harry Irion, Forest Service; D. Breese Jones, Bureau of Human Nutrition and Home Economics; Damon A. Spencer, Bureau of Animal Industry; and Russell E. Uhland, Soil Conservation Service.

The council consists of 2 members each from 16 bureaus:

George C. Edler and John J. Morgan, Bureau of Agriculture Economics; Dallas S. Burch and John H. Zeller, BAI; S. B. Detwiler, Jr., and George W. Irving, Jr., Bureau of Agricultural and Industrial Chemistry: Lloyd A. Burkey and Philip A. Wright, Bureau of Dairy Industry; Horace S. Dean and Fred W. Poos, EPQ; Frederick V. Rand and Barton C. Reynolds, OES; Gladys Gallup and Clifton D. Lowe, Extension Service; W. I. Patterson and F. H. Wiley, Food and Drug Administration; George B. L. Arner and Percy K. Norris, Office of Foreign Agricultural Relations; William R. Chapline and Dana Parkinson, FS; Lois Hallman and Elizabeth M. Hewston, HNHE; Harris T. Baldwin and Mabel Hunt Doyle, INF.; Esther D. Koch and Hazel B. Mercier, Library; Marvin E. Fowler and Roy Magruder, PISAE; Marietta Thomas and John W. Wright, PMA; Grover F. Brown and John G. Sutton, SCS.

Extension hobby show

YES, extension folk have many hobbies. If there are any doubting Thomases as to this, they should have attended the Extension Hobby Show in the Fourth Wing Cafeteria, Washington, on the evening of January 6. About 34 exhibits were displayed and 130 people attended the dinner and show. Conceived by Madge Reese and organized by extension wives and the Quarterly Conference Committee, the show was a huge success. Roy Jones was in charge.

The show included both collectors' and handicraft hobbies, ranging all the way from the many geological specimens collected by Director Wilson to Philatelist Fred Jans' stamp collection and W. K. Williams' tin-can crafts exhibit. The elephant exhibit of Mrs. R. J. Haskell, Grace Frysinger's dolls of all nations, Virginia Wilson's dolls shown by "Mrs. M. L.," and the copper displayed by Florence Hall received many oh's and ah's.

The kodachrome slide exhibits entered by A. B. Nystrom, Tim Hornung, Art Sowder, Doc Haskell, Roy Jones, H. W. Gilbertson, and the Ackermans—well, they offered convincing proof that there is no more beautiful place in all the world than Washington.

No, there were no prizes given, for a hobby is naturally a personal thing and isn't comparable with another person's hobby. But those who saw the show got a more intimate knowledge of the interests and personalities of their fellow workers.

Brief but important

R. A. S. 68: This Research Achievement Sheet tells about prevention of rot in young oak stands. Decay of heartwood, which affects a fourth or more of young oaks in large areas in the eastern and central hardwood regions, can be largely prevented by removal of infected sprouts, coming from stumps, before a stand is 15 years old. These studies were made by the Bureau of Plant Industry, Soils, and Agricultural Engineering. Though it is too early to estimate the value of this work in dollars, increased yields of high-grade oak from the valuable butt logs will definitely increase profits from timber in these regions. Dallas Burch, Ext. 3780, has these research sheets.

Farmers Home Administration info: Ralph Picard, former chief of information for FHA, has been stepped up to Assistant Administrator, which is appropriate, as almost his entire experience before entering Farm Security Administration info in Indianapolis, in 1941, had been administrative—such as director of personnel, Federal-city works coordinator and 4 years as finance and public-service commissioner for Memphis, Tenn. Ralph was born in Illinois, spent his boyhood in Louisiana, and since World War I has lived in Minnesota, Kansas, Ohio, and Indiana. He is succeeded in FHA info by Phil Brown, young veteran in information for this agency, as he joined up in 1935, in Resettlement Administration days. So far his whole career has been in RA, FSA, and FHA since graduation in journalism—except that Uncle Sam took a bit of his time in World War II.

World food situations: The food shortage abroad may become critical before harvest. Food reserves are slightly higher now, but many countries have insufficient to last until the next harvest. Ask Press Service, write or phone 6114 for 44.

Gloomy New Year? According to Business Week for December 28, 1946, the Florida citrus industry faced a gloomy New Year—too much production, too many young trees ready to produce more, gluts. Our Bureau of Agricultural Economics was quoted as suggesting more processing than ever to absorb the crop, and our Agricultural Research Administration has done much to develop methods to make this possible. Some juicing plants are already making stock feed from pulp, while jellied citrus juice, frozen juice, tablets wrapped in wax, and grapefruit-seed oil are all possibilities. See the magazine mentioned, page 30, for the entire review.

Consumers' Guide: A writer in The Progressive, published at Madison, Wis., recently said Consumers' Guide was worth several times the annual subscription price of 50 cents. So we looked more carefully than usual into the January issue and found an excellent summation of rural conditions under the title "Home on the farm," piquant material on new household equipment now on the way, an informative article with the intimidating title, "What are you worth?" briefer articles about the 1947 farm goals and the world's 1947 menu, and briefer items still about a whole lot of things. But write or phone (4785) for a copy and read it. That's the best thing.

You'll find soil conservation covered compactly in press release 2777, a condensation of an address by Chief Bennett, Soil Conservation Service, before the American Political Science Association, entitled "Technology, Natural Resources, and Government." Write or phone 6114, Press Service.

Church interest in rural problems: Lutheran, Catholic, Congregational, and other church bodies show increasing interest in rural problems. The director of the Lutheran Rural Church Life Program recently held a number of seminar meetings in Wisconsin, the discussions centering entirely around rural life. At the invitation of the Vermont superintendent of Congregational churches, Dr. W. W. Biddle, of Farmers Home Administration, spent a week in that State presenting specific problems in the same field. Catholic clergy from several Nebraska counties met recently with representatives of FHA to learn all they could about its work. Information people in FHA in Washington can tell you more about all this.

Nutrition teams: Many of our favorite food combinations are ideal from a nutrition standpoint—bread and milk, ham sandwiches, or meat pie. Proteins often add themselves up in a peculiar way to make the whole greater than the sum of the parts. Recent Bureau of Animal Industry experiments show that pork fortifies the growth-promoting value of bread when the two are

eaten together. In one experiment of 30 days, young rats averaged a gain of only 22 grams on bread alone but of 113 grams when pork and bread were fed together. Wholewheat bread is somewhat better than white in such combinations. There are more details on this in Helen C. Douglass' always readable and informative Food and Home Notes for January 1; she is in Press Service.

Recommended: World Food Appraisal for 1946–47, from Food and Agriculture Organization of the United Nations, issued December 26 last (write or phone Distribution Control, 3511).

Radio changes: Dana Reynolds drops RFD, the letter from Radio Service to radio farm directors, to operate out of Washington in handling the western office in San Francisco. W. K. Charles, Chief of Special Reports, takes over the RFD letter and correspondence, certain network assignments, and other activities Dana handled.

Two Blades of Grass: A book by this name has twice been mentioned herein. It is a forthcoming history of the Department's scientific achievements and of those who made them, by T. Swann Harding; it is to be published sometime by the University of Oklahoma Press, Norman, Okla. Since mention of it has brought many inquiries, let it now be said that the book has been "forthcoming" since the spring of 1946; the latest in a long list of publication dates is March 20, but that seems as likely to be 1948, or 1949, as the 1947 it is supposed to be. The next time the book is mentioned it will exist. It seems almost certain to appear before 1950.

Time Out for Refreshment: It is suggested that you get hold of this one-page article on the last page of Printers' Ink for December 27, 1946. It is by Don Ross of Successful Farming. It intelligently discusses time out, little breaks in work or rest periods, coffee drinking, and so on, and it also tells how you can wake a meeting up which has gone to sleep by informing the somnolent group that the room is needed and the meeting has to continue in another room some little distance away. Great stuff. Read it.

Victuals up: After fighting off the step just as long as possible, the Department's Welfare Association has at last been compelled to increase the price of cafeteria meals. It operated at a loss during the last 6 months of 1946 due to rising food costs.

Robert J. Lambert, chief of current information for Rural Electrification Administration, died December 29 following a heart attack. He was a native of Arkansas who had worked on the Tulsa and Little Rock newspapers.

Federal Science Progress has begun to appear from the Department of Commerce, a monthly magazine at $3 a year. It covers technical research by U. S. and foreign governments. Volume 1, No. 1, for February, is a handsome two-color job, approximately 9 by 11¼ inches and 45 pages, lavishly illustrated on expensive paper. It features aerial soil surveys, solar heating, synthetic oil, German technical developments, domestic technology, and so on, and aims to provide science for the businessman.

Old timers: The following members of the present Food and Drug Administration were also in service the first year the law was enforced by the old Bureau of Chemistry, USDA: Joseph Cohen, Mrs. Laura S. Ehlier, Francis C. Gay, William R. M. Wharton, Alexander G. Murray, Paul B. Dunbar (now Commissioner of Food and Drugs), Julian I. Palmore, Charles E. Farello, and Hugo J. Wichmann.

Agricultural Finance Review: Volume 9 of this report, dated November 1946, on farm credit, insurance, and taxation, has issued from the Division of Agricultural Finance, in the Bureau of Agricultural Economics. It is an annual review well worth study by those interested in the current financial status of the entire agricultural industry.

Kermit Overby, formerly of Triple-A and, after a tour of duty with Uncle Sam, in the Office of Information, first as chief of Special Reports, later as chief of Press Service, left that position after a short incumbency to become head of Rural Electrification Administration's new Information Services Division. Allyn Walters now heads the Division's Press and Radio Services Section. The purpose of the reorganization is to increase REA services to its co-ops in their member education programs.

Rural electrification: If interested in a progress report on rural electrification, future prospects for electrical equipment, and the shrinking horizon faced by Rural Electrification Administration, read Rural Electrification News for January 1947. Do not miss Administrator Wickard's rather startling foreword on the inside front cover. Get the magazine from REA information; write or phone 6324.

Poultry improvement: Research Achievement Sheet No. 71 says more eggs per hen, better quality eggs, and better birds for the frying pan and oven are a few of the benefits from the National Poultry Improvement Plan, which started July 1, 1935. The estimated cost of developing this plan was $3,000. By increasing efficiency in poultry and egg production, identifying high-quality birds, reducing mortality, and otherwise improving poultry breeding, the plan has probably added $15,000,000 annually to poultrymen's earnings. Dallas Burch, Ext. 3780, has these achievement sheets.

Forest-fire periodical: A Brief But Important note in *USDA* for December 9 listing Department periodicals omitted mention of Fire Control Notes, published quarterly by Forest Service. This periodical is devoted to techniques and new developments in forest-fire control. It circulates among and gets contributions from State and private as well as Federal foresters concerned with fire-control work. It began in 1936, was suspended during the war, and resumed publication in 1946.

FS branch reorganized: The Forest Service Divisions of State and Private Forestry have been combined into one, the Division of Cooperative Forest Management, under Chief Arthur R. Spillers, veteran forester. Sections under the division are: Woodland management, under M. M. Bryan; State and community forests, and distribution of nursery and planting stock, under George A. Duthie; naval-stores conservation program, under Jay Ward; and wood utilization (chief not named at this writing). This combines in one division all FS cooperative activities in forest management with State forest agencies, private landowners, and industries.

Cotton liaison representative: Secretary Anderson, in Memorandum No. 1184, January 10, appointed E. D. White as an Assistant to the Secretary to act in a liaison capacity between the Department and other Government agencies in discharging the Department's responsibilities relating to cotton. The enactment of recent research legislation, the recent increase in the mechanization of cotton, the growing competition from synthetic fibers, and the difficulties encountered in regaining export markets have added increased responsibilities that need to be effectively met. If you want details about what the USDA has done and will do regarding cotton, as well as about the genesis of the Research and Marketing Act of 1946, read Secretary Anderson's speech, Cotton Accomplishments, delivered in Texas January 28. Write or phone (Ext. 6114) Press Service, USDA, for 172.

Farmers Home Administration: Under this title this agency is discussed in the Winter 1946–47 number of the Antioch Review (Vol. 6, No. 4), in an article by T. Swann Harding.

The editor would like to thank the extraordinarily large number of readers who expressed admiration for his very sincere tribute to Reuben Brigham, issue of January 6, a man he had known for 35 years to admire and to revere him. The complimentary messages flowed in by letter, by phone, by word of mouth. It was mighty, mighty kind of "you all." The item elicited more spontaneous favorable comment than any we ever published.

J. Harold Johnson, Kansas State 4–H Club leader, brought two of his club members to Washington—Norma Jean Haley (Wichita) and Merle Eyestone (Leavenworth), both Capper Scholarship Award winners—to present a citation to Sen. Arthur Capper (Kans.) in honor of his outstanding contributions to 4–H Club work. The citation, in the form of a plaque, was presented January 6 on behalf of the 20,000 4–H Club members of Kansas, their local leaders and extension workers. The presentation, which took place in Sen. Capper's office in the Senate Office Building, was also attended by M. L. Wilson, Director of Extension Work, Gertrude L. Warren, R. A. Turner, George W. Ackerman, and Mrs. Clara B. Ackerman, all of the Federal Extension Service, and Congressman Clifford Hope, of Kansas.

Futures markets: Futures trading in agricultural commodity markets that operated throughout the war continued at high levels during 1946. Activity also revived in markets that were dormant during the war. Says J. M. Mehl, Administrator of the Commodity Exchange Act, "By the closing months of 1946, with the relaxation of wartime controls, most of the commodity markets were beginning to operate under more normal conditions." For more details write or phone 6114, Press Service, asking for 56.

Extension Agent Tom Campbell's book: The Movable School Goes to the Negro Farmer, is being used as a background source by Alice Alison Lide and her sister-in-law, Mrs. T. E. Lide, of Minter, Ala., who are writing a new book on Booker T. Washington, entitled "Glory Road: The Story of Booker T. Washington." Campbell, who as a student at Tuskegee was a coachman for Dr. Washington, tells in his book how the founder of Tuskegee got Dr. Seaman A. Knapp of USDA to help start the mobile school in 1906. Campbell drove the wagon-school for nearly 10 years, carrying agricultural education right up to the doors of thousands of colored farmers in Alabama. The movable school is still in operation in Alabama, supplementing the work of extension agents in that State.

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MAR 12 1947
U. S. DEPARTMENT OF AGRICULTURE

USDA

FOR MARCH 3–17, 1947

Due to the shortage of printing funds, the March 3 and March 17 issues of *USDA* are combined in one.

Commodity Exchange Authority

SECRETARY'S MEMORANDUM No. 1185, January 21, established CEA as a separate agency directly responsible to the Secretary. It is charged with administration of the Commodity Exchange Act, formerly enforced by the CEA unit of the Compliance and Investigation Branch of the Production and Marketing Administration, but much earlier also an independent agency.

The Commodity Exchange Administration was originally created in the Department by Secretary's Memorandum No. 700, effective July 1, 1936. It then superseded the Grain Futures Administration, established in the Department under provisions of the Grain Futures Act of September 21, 1922, to supervise grain futures transactions, check the dissemination of misleading information tending to affect the price of grain, and to prevent price manipulation and corners.

The Commodity Exchange Act of June 15, 1936, regulates exchanges, commission merchants, and brokers who deal in futures contracts covering a considerable number of agricultural commodities, and provides for the elimination of questionable marketing practices. During the war this work diminished in volume and was handled in the Office of Distribution of the War Food Administration, and for a short while also by an Office of Investigatory Services.

J. M. Mehl, who headed the Compliance and Investigation Branch of PMA, was appointed Administrator of the new agency. The order took effect February 1.

Spud flood

IF YOU WANT the facts about potatoes, they are these. What happened is in part the result of a revolutionized agricultural technology which can step up production enormously. Potatoes are a nonbasic commodity covered by the Steagall amendment and must be supported at not less than 90 percent of the parity or comparable price until December 31, 1948. A minimum support price was announced for 1946; national plantings dropped 100,000 acres, one-fifth smaller than in 1928, and the smallest acreage since 1892.

But production shifted to heavy-yielding areas, these had good weather, and growers made extensive use of fertilizers and improved cultural practices. Result: An average per-acre yield of 184 bushels. Compare this with an average of 126 bushels for 1935–44, and a previous high of 155! The record crop was 475 million bushels—the 1947 goal is only 375. Military orders were down; potatoes are less desirable than grain for export, and when dehydrated become really expensive for relief use. Our own people, true to modern dietary knowledge, eat 15 percent fewer potatoes now than before World War II. There was a limit to plant capacity for making starch.

January 1 we had an all-time high of 150 million bushels left, a surplus of 45 at least, 25 of which may perhaps find good use. Every effort is being made to dispose of them for industrial uses, livestock feed, the School Lunch Program, and for export. Of the surplus, 45 percent is located in Maine, 26 in New York and Pennsylvania, 7 in the Central, and 22 in the Western States. However, it is unlikely that use can be found for 20 million bushels of the spuds before decay sets in, and a net loss of 80 million dollars is now anticipated. With the laws at present in force that is unavoidable.

Waksman's problem

SELMAN A. WAKSMAN, discoverer of streptomycin and distinguished soil microbiologist, is a little Russian who has been in this country some 30 years. He has a shock of iron-gray hair and a heavy mustache that is somewhat darker in color, as is somehow the way of mustaches. He lived a very pleasant life as a research worker at New Jersey Agricultural Experiment Station for many years. Then he discovered the newer antibiotic—he coined that word too—and blooie!

Now his time is no longer his own. With pathetic eagerness he asks not to be interviewed at all unless we do not talk about streptomycin—then he has to talk about streptomycin anyway. Newsmen with cameras frighten him. Invitations to speak in all parts of the country come in at the rate of one a day; one wire from California recently asked him to come there for a 6-minute talk in April! A chamber of commerce asked him not long ago to speak 5 minutes on a dinner program; it turned out to be a half-hour broadcast which, he says, was positively the worst broadcast in radio history.

Waksman is intelligent, affable, approachable, kindly, and—very fortunately—animated by an inexhaustible sense of humor which enables him to withstand the irritation and fatigue of the American way of life with celebrities, a way of life which threatens to end his own, and already has seriously interfered with his pursuit of science. He wants a public patent on his discovery, the returns to be plowed back into research. He is well satisfied with his meager income and does not desire the five-figure salaries freely offered him by private industry.

He just hopes that all the profits do not go to lawyers for the various firms which are right now building 20 million dollars' worth of new plants to make the substance he discovered, using the ordinary unspectacular and economical equipment of an experiment station or land-grant college laboratory. He laughs at a reporter's discovery of "antibiotic" as a $440,000 word in the President's budget and says he would welcome a tenth of that—to spend on further research of course. Unpretentious, somewhat fatigued, yet hopeful of getting back to work, Waksman at 60 is an interesting and revealing figure in the American scientific world. As he says, his discovery threatens to ruin him! Meanwhile the bugs are building up resistance to streptomycin and that offers a serious problem.

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What is an index to a publication?

SINCE the editor couldn't answer that question he came to headquarters remarking, "Indexes prepared in the Indexing Section of the USDA Office of Information are universally approved and often acclaimed." An idea of the size of this task may be gathered from the fact that it requires 50–60 cards to index the average Farmers' Bulletin of 16 pages; about 2,550 cards to index the annual Agricultural Statistics, and 3,325 cards to index a Yearbook. A book of 400 pages requires about 75 hours to index and to prepare approximately 1,250 cards for the printer.

Making the cards is only the first step; they must then be aphabetized, letter by letter and word by word. Decisions must be made in the choice of words for policy purposes. References are combined on cards with the same entry, suitable cross references are added, and a final once-over is made for possible additions and deletions. Then at long last the cards are prepared for the printer with strange little editing marks known to indexers.

An index describes, by means of an alphabetical list of words or phrases, the subject matter in a publication, together with the pagination or other references. It does not give information but suggests what answers the publication gives to questions occurring in the mind of the user. The importance and value of indexes are so widely recognized that not only school textbooks, but also nearly all nonfiction of reference value contain indexes. The usefulness of a book without an index is so minimized that a British jurist once proposed no copyright should be given for such a book.

Some authors index their own work, believing that a knowledge of the contents is the criterion; others employ a professional indexer. While the author is more familiar with his book, he is less likely to prepare an index that a consulter could use effectively. The professional indexer follows a standard style objectively and logically, and, knowing the techniques, can apply them while reading the page proof.

Arbitrary rules for making indexes are neither feasible nor possible. Certain basic principles and techniques can be followed, but different types of books and various other factors require elasticity in procedures. In general, the fuller an index is, with plenty of cross references, the more useful. An indexer must feel instinctively what the user will look for and arrange the entries so they can be readily found. Simple specific words and common terms should be used as main entries, with adjectives or substantive phrases for the modifiers and subheads.

Few people realize the time, labor, and difficulties involved in making a good index. One must have a liberal background with some specialized knowledge, well-trained memory, and patience. That which seems time-consuming for the indexer will prove time-saving for the consulters. Accuracy is of prime importance; without it an index is either misleading or useless. Without conciseness, the user is lost among meaningless words. Above all, experience is the best teacher.—MABEL HUNT DOYLE, INF.

Can Science Save Us?

THAT IS the title of a dollar paperbound book (also available in cloth) by George A. Lundberg, sociologist of the University of Washington It is a more than usually good blow-up of two articles in Harper's Magazine which aroused wide comment. About page 76 Lundberg gets down to people like us who try to educate others by means of the written or the spoken word. He thinks increased reliance should be placed upon the former as we approach college and university life, however good the spoken word is during the process of socialization that goes on in grade school. Lundberg writes:

> We depend entirely too much upon methods of teaching which have been out of date since the wide diffusion of printed matter became possible. It is a waste of time to listen to a lecture for an hour, the content of which a properly trained person should be able to get much better in 15 minutes through reading. Yet the habit of relying on lectures persists, first, because it is a habit, and second, because most people have not yet learned to read with ease and accuracy. The fact is, of course, that most people at present respond more readily to ideas communicated orally by a person on a stage because it is fundamentally a dramatic set-up with all the appeals of that form of communication. Still, as a method of simple exposition, it is a primitive method, wasteful of time, and it must be increasingly supplanted by reading.
>
> Why is it so hard to teach people to read? Eight years of elementary school is largely devoted to it; 4 years of high school devote much attention to it; and yet people come to college and graduate therefrom still lacking the power and or the inclination to absorb knowledge from the printed page Correlative, of course, is the need to teach those who have material to communicate to write it so that it can be absorbed by a minimum of effort on the part of the reader. But whoever succeeds in arousing an enduring curiosity in men *and* discovers how to teach them to read will have done more to revolutionize our education than all others put together. This is the all-pervading, the staggering need in the pedagogical aspect of educational reconstruction.

It is a fact for us USDA people to consider as well. Just recently the New York Times observed that many New York City housewives enrolled in adult education classes had long been under the impression that "inflammable" meant "noninflammable," hence had been careless—sometimes to their grief. Inability to read accurately can easily menace health and life. If the sign says "Danger! Live Wire!" and you look at it and say "Who's Smoking?" you can't tell what will happen. Lundberg has many other wise observations in his book, published by Longmans, Green & Co., New York.

The PCA's

THE EDITOR took a postman's holiday the other day, a trip at his own expense, and attended the thirteenth annual meeting of the stockholders of the New Brunswick (N. J.) Production Credit Association in Roger Williams Hall of the First Baptist Church of that city. The meeting was called at 10:30 a. m., included a big dinner, and adjourned promptly at 3:30 p. m. It was well attended, members were enthusiastic in discussion from the floor, business was competently transacted, and if all the other 504 such associations the U.S. over are as well conducted, more power to them.

Harold B. Everitt is president and Robert S. Horne secretary-treasurer of this PCA. It has nearly 500 members, owning $60,000 of stock, with reserves of a little over that amount for membership protection and nearly $900,000 loaned during 1946. A full, complete, and easily comprehensible report hung on charts up front—except when one of them took a swooning fit and dived to the floor. These financial statements showed steady growth since 1939. In 1934 this PCA started out with $175,000 of Uncle Sam's money invested in it, now reduced to $145 000, with another $45,000 about to be withdrawn. Discussion centered on complete member ownership.

The speakers were vivid, direct, and kept the audience on its toes. One noted that many associations were buying Uncle Sam out—why not New Bruns-

wick? Another suggested that, since New Brunswick had managed to lose about $28,000 on its $5,200,000 loaned to date, perhaps it was a bit less hard-money minded than other associations, one of which had lost only $97 in its entire career.

The main thing now was to keep the election of directors wholly democratic, to induce members to signify what they wanted by speaking freely from the floor, and to return the remainder of Uncle's investment! Many good words were said for the guidance, counsel, and general helpfulness of Farm Credit Administration of Springfield, Mass., headquarters of this region. We were impressed with the vitality and general friendliness of the meeting, as well as with its businesslike atmosphere.

Insect FBI

THE Insect Identification Division of the Bureau of Entomology and Plant Quarantine is sometimes dubbed the "FBI of the insect world." Insect identification is quite a job when you consider there are 600,000 known species, and that these constitute only about a third of the estimated number of species on the planet. Moreover the total weight of insects on the earth is greater than that of any other class of living organisms.

But until you reach the top floor of the National Museum in Washington—and you may not, as it isn't open to the public—you never realize what a whale of a job it is to tell which from t'other. Here the world's second-largest collection of insects is housed and here EPQ taxonomists perform their daily task of classification and identification. Dozens of moths and beetles look alike to the untrained eye; even the naked trained eye cannot always detect their differences unless clothed with a microscope. Each species is different; each has probably existed for hundreds of thousands of years.

The collection of South American butterflies and moths is the largest in the world. U. S. entomologists have at hand a great master keyboard by means of which destructive species from any part of the earth may be identified. Occasionally one of them gets into this country—as the white-fringed beetle did—and raises hob. But as C. F. W. Muesebeck, Chief of the Division, says, "Just as correct diagnosis is essential for treatment of a specific disease, so correct identification of insects is important to get the right and effective control for specific insect enemies."

EPQ has close relations with the museum as to housing and storage space, and the collections become the property of the museum. EPQ supplies the operating equipment, and some 50,000 to 75,000 insect samples come in annually for identification, 90 percent of them having economic importance to someone. Many also come from foreign and domestic plant-quarantine workers, and collaboration with the States is very close. Approximately half the samples that arrive can be quickly identified, but others require long research. Items for identification should comprise at least 20 specimens, including both sexes.

Adventures with Flesch

DONALD R. MURPHY, editor of Wallaces' Farmer and Iowa Homestead, recently reported in Printers' Ink (January 10) on his demonstration that short words and sentences not only make easier reading but draw more readers. His brief article expounds a test made by the split-run method followed by a reader-interest study. In half the copies of one issue of the agricultural journal a wet-corn article appeared in a style as easy to read as that of Reader's Digest; in the other half of the copies of the same issue the article was made much simpler.

In short: Sentences averaged 18 words, which had 33 affixes and 2 personal references per 100 in the harder copy, Flesch-index rating, 3.66; they averaged 12 words, with 14 affixes and 4 personal references per 100 in the second or easier copy, Flesch-index rating, 1.5. The latter proved to be 18 percent easier reading than the former. What is more, a great many additional persons read the full article, a gain of considerable moment. But a drop from a readability level of 5.03, Harper's, to 3.92, Reader's Digest, or from 3.32, still Reader's Digest, to 2.47, Liberty, had no significant results. Look the article up for details.

Brief but important

E. F. Knipling, recently appointed to head the Bureau of Entomology and Plant Quarantine's Division of Insects Affecting Man and Animals, was the first recipient of an award given on January 23 by the Cooperative Inter-Breed Cattle Association of New Jersey. The award, consisting of an engraved scroll, was made for his part in the development of suitable formulations of DDT for use by the dairy industry. This new award is to be made each year by the dairy industry to a person contributing in a significant way thereto.

Entomology is under the wing of Bailey B. Pepper at the New Jersey State College of Agriculture, New Brunswick. He has quite an insect factory up there—reminds us of Orlando—carefully rearing German and American cockroaches, lice, and houseflies for test purposes. George W. Barber, who retired from our Bureau of Entomology and Plant Quarantine in 1945 (he worked in Toledo), may be found there happily overseeing the hatching of the flies. The factory is tidy and businesslike. Somehow ladies like to work there also. Excellent work is being done on insecticides for the corn borer and for combating other insectivorous enemies of farm crops and animals.

John W. Bartlett handles the dairy work at the New Jersey State College of Agriculture, New Brunswick, and, if you must know, we were there at our own expense just looking around. Cattle breeding is to the fore; Bartlett and his staff are outstanding in this section. During a long-time experiment started in 1930, they have unearthed genetic families of dairy cows more than usually apt to retain the placenta, low in disease resistance and longevity, inclined in some instances to live only about 7 years, have four lactation periods, and produce but two heifer calves, high in sterility, and so on. Close inbreeding uncovers many disadvantageous factors. Results of the experiment should be of great importance to dairy cattle breeders. And, incidentally, did you know that dairy cows and bulls often fail to reproduce because of common, garden incompatability? They do.

Miss Sinah E. Kelley, Negro analytical chemist at the Northern Regional Research Laboratory and a graduate of Radcliffe College, played a role in the penicillin project there by performing important analyses. She transferred 3 years ago from the Picatinny Arsenal to the Peoria lab where she works in the Fermentation Division.

The Indispensable Honeybee, an article by James I. Hambleton, Division of Bee Culture, Bureau of Entomology and Plant Quarantine, which appeared in the Smithsonian Report for 1945, is about as interesting and well-written a discussion of the subject as we hope soon to see. The honeybee gets around the earth better than any other species and its product is known even better as food than are wheat and milk. Its pollination activities are perhaps even more important to mankind than its honey. Hambleton probably has a few reprints to distribute if you write him at Beltsville, Md.

Farms grow larger—and fewer: Read the lead article in Agricultural Situation for January to get the low-down on this. Also recommended in the same issue: Before Buying a Farm Check These Points, and Dried Milk Output Tripled In Decade. Procure from Bureau of Agricultural Economics.

Georgia Better Farms: There is a brief and informative discussion in February Soil Conservation of the Cason Gallaway Plan for making run-down Georgia farms pay. Procure from Soil Conservation Service.

Dr. Willard E. Herring, one of the three original members of the Rural Electification Administration staff, has retired from Government service. On retirement he held the

position of consulting engineer. A utility management engineer, Dr. Herring served in several capacities in REA—chief engineer, liaison officer with TVA, director of the Operations Division, and special consultant to the REA Administrator.

Self-censorship: The annual report of the Librarian, Ralph R. Shaw, briefly tells the interesting story of how the USDA censored its own scientific and technical information during the war. Until September 1, 1945, when censorship was discontinued, the Office of Censorship and the Board of Economic Welfare delegated to the Department the job of making sure that results of its wartime research did not get to the enemy via its own publications or through letters mailed by it. Departmental approval was recognized as adequate clearance. Scientists helped in the guarding of technical information that might have proved of value to Axis nations.

At Home on the Farm with the City Cousin: This is a brief column for the weekly press prepared by Warren A. Sullivan, North Carolina's assistant extension editor. It stresses down-to-earth farm information a city cousin wouldn't know about—such as how much it costs to raise your own hogs and what profit per pound you get if things turn out well, which so often they don't, or how North Carolina mules go down to dental clinics to have their teeth examined and fixed, clinics sponsored by the extension animal husbandryman, and so on. Maybe you will want to write him at State College Station, Raleigh, N. C., for a sample.

Final 1947 Farm Production Goals were announced January 14 in press release 84; write or call Press Service, 6114.

Oberly Memorial Award: This award is given every 2 years to the American citizen compiling the best bibliography in agriculture or the related sciences. The award for 1945–46 will be made in the spring of 1947. Those competing for the prize should send 4 typewritten or printed copies of the bibliography, with a letter of explanation, to the committee chairman: W. P. Kellam, University of South Carolina, Columbia, S. C. The award was established at the time of the death, in 1941, of Eunice Rockwood Oberly, librarian of the Bureau of Plant Industry. The biennial interest on $1,000 is given as the award.

How many remember that Andrew J. Volstead, recently deceased father of "prohibition," also sponsored the Capper-Volstead Act of February 18, 1922, insofar as the House was concerned? Its fundamental object was to authorize farmers to unite in organizations, incorporated or not, which could assemble, process, handle, and market farm products just as if they were all being handled by one farmer. This is the magna carta of farmers' marketing co-ops. See page 213 ff. of Legal Phases of Cooperative Associations, by L. S. Hulbert, Bulletin 50 of Farm Credit Administration, issued May 1942, for details.

Recreation director appointed: The USDA Welfare Association has appointed John G. Scherlacher as Director of Recreation for Washington and Beltsville. His responsibility will be to stimulate, organize, and promote a recreation program for employees in this area. Mr. Scherlacher's appointment as a full-time Director of Recreation is another service the association is providing its members. Field organizations might wish to consider the possibility of securing similar assistance if only on a consulting or part-time basis.

Price-support policy: Secretary Anderson's statement on agricultural price-support policy, before the Committee on Agriculture of the House, January 22, is not only something you *should* read, but is so clearly and so well written as to make reading a pleasure on a topic you might otherwise suppose to be necessarily dull. To procure write or phone (Ext. 6114) Press Service for 153. The potato story therein is well and fully told and the entire nature and history of our price-support program is given concise exposition.

Association of Official Agricultural Chemists' Methods of Analysis: Ward B. White, Chief of the Food Division, Food and Drug Administration, has done an interesting article on this subject, which also includes a history of the A. O. A. C. It appeared in Food Drug Cosmetic Law Quarterly for December 1946. Dr. White has reprints; address him at the FDA in Washington, D. C.

Sit and think: A badly intimidated reader who thoughtfully failed to sign his name wondered about the item called "Sit and think" in *USDA* for December 23 last, page 2. Oddly enough he marked the first two paragraphs which were merely an introduction to the real point of the little essay, the helpful gist of the matter being in paragraph 3. It makes us wonder how many readers thus fall by the wayside and fail to get to the point when they read. On the other hand, on a recent official trip, we found the item clipped and displayed under desk glass or on the wall at three different places!

Errors: We must confess to a certain subdued delight whenever we find other editors making errors. This time it was the New York Times Magazine to which a Philadelphia reader wrote, gravely chiding it that a mere "117,000 uncomplaining cows" could not possibly yield the 3½ million quarts of milk daily New York consumes, for that would mean an average of 20,000 pounds per cow per annum, and that just isn't done in New York State. So the editor shyly remarked, "Our Cow Editor, after bracing himself with a glass of milk, plunged again into his arithmetic and now reports that the number of cows (uncomplaining or otherwise) should have been 456,323, or thereabouts." Thanks for a thrill.

Cabbage seed: You may know a few cabbage heads personally, but were you aware that nearly all the cabbage seed grown in the U. S. before the war came from a single county, Skagit, in Washington? Then cabbage-plant diseases threatened the industry, but Federal and State workers joined forces, broke a vicious circle in cabbage seed production—an overlapping of old and new cabbage crops—and vastly reduced losses from cabbage mosaic, which is carted to healthy plants by plant lice. Growers were shown how to produce new plants in beds at a safe distance of several miles from the cabbage fields of yesteryear, the aphids or plant lice were foiled, and the industry was sound again.

Forest reappraisal: Three of a series of reports to be issued on this subject—Gaging the Timber Resources, Potential Requirements for Timber Products, and The Management Status of Forest Lands—are now available. Write or phone (Ext. 6114) Press Service, USDA. Secretary Anderson stated recently that the U. S. should double its present rate of saw-timber growth to assure an ample supply of timber for estimated needs.

FAO Commission Report: The Report of the Food and Agriculture Organization's Preparatory Commission on World Food Proposals was made January 24. Copies of the statement made thereon by Under Secretary Dodd, U. S. member of the commission, are available from Press Service; write or phone Ext. 6114, asking for 176.

Accent on Tomorrow: The second annual National Home Demonstration Week is May 4 to 11; the theme—Today's Home Builds Tomorrow's World; the locale—rural homes and communities throughout continental U. S., Hawaii, Puerto Rico, and Alaska. For details get the fact sheet from Extension Information, Extension Service, USDA Washington 25, D. C.

Laws carrying a penalty of dismissal from office: Secretary's Memorandum No. 1147, Revision 1, January 16, lists the laws of general applicability which carry a penalty of dismissal from office. It was issued because a review of disciplinary cases arising in USDA indicated that employees were not too familiar with the laws and their provisions. Those in need of copies apply to Secretary's Records, USDA, Washington 25, D. C., or phone 3320.

Farm programs: While the President's proclamation of the end of hostilities ends agricultural price support as of December 31, 1948, how many of you remember that: The Sugar Act of 1937 expires December 31, 1947; the Soil Conservation and Domestic Allotment Act empowering the Secretary to conduct the Nation-wide Agricultural Conservation Program ends December 31, 1948; authority for the farm-labor supply program ends June 30, 1947; the authority of the Commodity Credit Corporation expires June 30, 1947; the Liquidation of Resettlement Projects ends July 30, 1949; and Land Bank Commissioner loans may not be made on behalf of the Federal Farm Mortgage Corporation after July 1, 1947?

Write name right: A Miss Stith known to the editor has gone through life (so far) discouraged because most letters that reach her are addressed to Miss Smith. A Mr. Shefford complains of a similar difficulty—his letters come reading "Shepherd," whereas Mrs. Shephard, with the "a," usually gets an "e." Advertisers have found it pays not only to get the name the same on the envelope and in the letter, but to have it spelled as the person so named himself spells it. One of the commonest forms of discourtesy of which we are all guilty is that of spelling names incorrectly. Write names right! We got caught on "Stith" ourselves!

Publications from Forest Service: Let us again remind you that Fire Control Notes is once more appearing; it is ordinary bulletin size, and January 1947, Vol. 8, No. 1, is current as we write. The subject matter is much more varied than you might think. FS also recently issued Miscellaneous Circular 66, The Identification of Furniture Woods, which may be procured in the patio, or by writing the Office of Information. Some of you might want to study it and then take a whirl at identifying the wood from which the bedstead was made, as compared with what the man said when you bought it. Arthur Koehler, who identified Hauptmann's ladder in the Lindbergh case, is author.

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U. S. GOVERNMENT PRINTING OFFICE: 1947

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USDA

FOR MARCH 31–APRIL 14, 1947

Awards to you!

THE OTHER DAY we tripped, and almost fell, over the following austere sentence: "Pursuant to the authority contained in Public Law No. 600, Seventy-ninth Congress, approved August 2, 1946, and in Executive Order No. 9817, dated December 31, 1946, it is the policy of the Department to recognize by honor awards exceptional or meritorious contributions of employees to efficient and constructive public service". Stay with us—this can't get any drier—and let's see what that means.

It has reference to *you*. Congress and the President have told USDA to go ahead on a plan for honoring its employees, just as both heroes and civilian employees of the Army and Navy are now honored. We appreciate the understanding of Congress in authorizing this honor plan. It is a good thing to remember when people accuse Congress of being unsympathetic to Federal personnel. After all, everything we have in Government is there by act of Congress.

Moreover we have our heroes who risk their lives. We have employees of outstanding skill in public administration, in scientific research, in service to agriculture and rural life generally. They merit the Distinguished Service Award, given rarely and only to exceptional employees, as judged by a committee of three private citizens and three USDA employees. It's a gold medal of high symbolic though slight monetary value. The Secretary himself presents it.

We have workers notable for meritorious execution of duty, who set exemplary records, show unusual courage or competence in emergencies, possess great initiative, and who merit the Superior Service Award. Finally, standards have been set, boards and agency committees will be appointed, awards will be presented annually on the Department's birthday, May 15. This is good news that concerns every one of you. See details in Secretary's Memorandum No. 1186, February 11; get copies from Secretary's Records Section or phone 3337.

Rural fiction

CAROLINE SHERMAN, Bureau of Agricultural Economics, has written Selected Rural Fiction in 1946, a 2-page mimeograph. This is the tenth year that this short annotated list of rural fiction has appeared. In rural novels may be found much of economic and social value to students of U. S. history. These lists give only the more significant recent novels, and are usually limited to stories of this country, though the 1946 list includes a translation from Icelandic of a near classic. This year the effect of the war is evident in the scarcity of good novels with rural themes. The 1946 selections are:

Acres of Antaeus, by Paul Corey (Henry Holt & Co., New York), dramatizes relentless corporation farming versus family farming under insuperable odds of depression; *Independent People,* by Halldór Laxness, translated from Icelandic (Alfred A. Knopf, New York), depicts the struggle of man with the elemental forces of nature operating under primitive conditions; *The Fields* (sequel to The Trees), by Conrad Richter (also Knopf), reflects admirably the half-cleared dense forests in Ohio during the early nineteenth century; *No Better Land,* by Laban C. Smith (Macmillan Co., New York), chronicles simply the growing farm prosperity in the early 1900's in Wisconsin, a character delineation; *Delta Wedding,* by Eudora Welty (Harcourt, Brace, New York), tells of a few days on a great Delta plantation, suggesting the habits and attitudes there.

Jonah, modern style

A CLOSE collaborator with Soil Conservation Service in establishing land-use capability classes is Firman E. Bear. He heads the soils department at New Jersey State College of Agriculture and he believes firmly in the importance of trace elements and regards the whale's longevity as something men should emulate. He asks, in fact, why should a man die at 75? Or, more pointedly, why should men die? The whale attains the greatest length of life of any mammal, but it cruises around continuously in the sea where every mineral element, including all the minor ones, is at its disposal if it needs them. Unlike Jonah, Dr. Bear stays outside the whale as he studies it, and maybe the whale does have an idea at that.

Dr. Bear is a youngish-looking, white-haired, active fellow with a slim body and an agile mind. He is mentally alert and wonderfully well informed. His studies of chemical versus nonchemical fertilizers are well known, and he finds nothing the matter with the former, unless it be a lack of some superimportant trace element. He points to the annual use of 45,000 tons of trace elements in Florida agriculture alone, and says we have much more to learn about these substances, as well as about sodium and potassium, which we think we know so well. He wonders why plants get potassium chloride while animals must have sodium, and believes that common salt would make a great fertilizer, if there were any money in it.

Trace elements may make or break man's biological supremacy. Dr. Bear strongly commends the survey of trace elements made by Kenneth C. Beeson, of the U. S. Soil, Plant, and Nutrition Laboratory. He also suggests as reading, The Second Forty Years, by Edward J. Stieglitz (J. B. Lippincott, Philadelphia), and Trace Elements in Plants and Animals, by William Stiles (Macmillan Co., New York City). While you are at it, look up the soil-science symposium he edited, the monograph entitled "The Minor Elements, Evidence, and Concepts on Functions, Deficiencies, and Excesses." Bear writes so well that Extension Editor Sam Reck can hardly improve his stuff; but what gets Sam is that Dr. Bear can occasionally improve on Reck's! Meanwhile, the whale is doing mighty well for itself.

Washington observes I Am an American Day May 15; field offices also are asked to observe it.

Brief but important: Many readers of *USDA* have expressed their satisfaction with these items in small type which have usually appeared on the final page or page and a half. Some have been brash enough to suggest that *USDA* consist wholly of such piquant and informative items. Now, due to the printing-fund-shortage brown-out, they get their wish. Strangely enough we have had few if any complaints about the illegibility of this small type and using it now seems the only way in which we can get the desired information to readers until some hoped-for return to normalcy occurs. Good eyesight to you!

Ham spoilage: Research Achievement Sheet 72 (A), available from Dallas Burch, Bureau of Animal Industry, tells how improved curing methods developed in BAI, at a cost of about $8,000, *are worth half a million a year* in preventing losses of ham through spoilage.

Agricultural Statistics: The Yearbook Statistical Committee is planning the 1947 edition. Suggestions for improvements or additions should be sent at once to the chairman, Richard K. Smith, Bureau of Agricultural Economics, 2407–S. The size of the 1947 book cannot exceed that of the 1946 one, which is now being distributed.

Foot-and-mouth disease: For information on foot-and-mouth disease, a dread infection that could devastate our beef and dairy cattle industries, and which spread to nine Mexican States and the Federal District, some 2 million cattle being in the quarantined area, ask Press Service for 219, 269, 278, 443, 489; write, or phone 6114.

DDT in fruit-insect control: The current facts on this subject, with special reference to the codling moth, may be found in press release 256; write Press Service or phone 6114.

"Talk," said Oliver Wendell Holmes, "to me is only spading up the ground for crops of thoughts."

Personnel workers will almost certainly find much useful information in a book on Women in Industry; Their Health and Efficiency, by Anna M. Baetjer, published by W. B. Saunders, Philadelphia-London.

The Report of the Second Session of the Food and Agriculture Organization Conference, held at Copenhagen, September 2–13, 1946, is now available. Address the FAO at 2000 Massachusetts Ave. NW, Washington 6, D. C.

Food, Drug, and Cosmetic Act: If any readers are interested in the fight for passage of this act during the administration of Secretary Wallace, a few reprints of an article on the subject are available to those who care to *write* the editor of *USDA* for one. The act became law a little before the Food and Drug Administration was transferred to Federal Security Agency.

Secretary's Memoranda: No. 968, Supplement 10, announced the members of the

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General Administrative Board for the Department's Graduate School; T. Roy Reid, Director of Personnel, is chairman. No. 1099, Revision 4 announced the membership of the Department Committee on Foreign Relations, of which L. A. Wheeler, Director of Foreign Agricultural Relations, is chairman. Both memoranda are dated January 31; procure copies from Secretary's Records Section, Plant & Operations; phone 3337, or write.

Safety Report 1945: This report was issued, with a foreword by Director of Personnel T. Roy Reid, on January 22. Procure copies from Office of Personnel.

UNESCO: A Report of the Program Commission, adopted by the General Conference of the United Nations Scientific and Cultural Organization in Paris, November 19–December 10, 1946, has been issued by the UNESCO Relations Staff, Department of State. It is mimeographed.

Knowledge, it has been said, is merely knowing where to look for things. Thus knowing how to use library facilities effectively is a more useful accomplishment than reading widely and having a fairly good memory for what is read.

"and hearing not"—the title is thus written—a book by Ernest Elmo Calkins (Scribner's) contains much of interest to all deafened workers. If you get hold of it, read carefully also Calkins' account of his father's desolation during 20 years in retirement—because he was unprepared for leisure, had no hobby, did not know how to play—see pages 283–84.

Inventions at Your Service, by Albert J. Kramer, USDA patent adviser, has appeared from Progress Press, Washington, D. C. It contains abstracts of important D of A patents which are available to the public free of charge. These are classified under informative chapter headings, like Wood Utilization, Naval Stores, Fertilizers and Soil Treatment, and so on, and there is a good index besides. Various scientific and technical magazines have reviewed the volume favorably; e. g., see Chemical Engineering for December 1946, page 276. The book is not long, but contains a wealth of information closely packed yet easy to utilize.

Yerba maté: See Agriculture in the Americas, Office of Foreign Agricultural Relations, for March, if you want to know more about this popular South American drink—as well as about a number of other things.

Voluntary meat grading: Federal grading of meat has increased sharply over prewar demand since the end of wartime mandatory grading provisions. For details get 301 from Press Service; write or phone 6114.

Corn marketing quotas: It was announced January 31 that there would be no corn marketing quotas and no corn acreage allotments for the 1947-48 corn production and marketing season. The Agricultural Adjustment Act of 1938 provides that marketing quota provisions shall not be invoked or continued in effect if the Secretary regards suspension or termination of these provisions necessary for consumer protection.

Pepsin powder softens some stains: According to USDA textile specialists, the digestive action of pepsin powder, which can be purchased at drug stores, will aid in removing stains made by eggs, milk, ice cream, meat juice, gelatin, glues, perspiration, blood, and certain medicines, even if they have been set by heat or alcohol. However, the stained fabric must contain no soap or other alkali, as that stops pepsin from acting. Your stomach's acid normally, remember?

Turnip greens: State nutrition workers say that the leaves of turnips contain more calcium and iron than the stems, but the stems are sufficiently nutritive not to be discarded. Even stringy older stems may add useful roughage to the diet. And, regardless of etiquette, don't disdain pot liquor in which greens have cooked. It is approved nutritional practice to sup it, drink it, or even to dunk cornbread in it!

The International Emergency Food Council, which replaced the wartime Combined Food Board on June 20, 1946, has issued a highly informative 64-page report of its activities. Address IEFC directly at 1735 De Sales Street NW, in Washington, zone 6.

Exit corn restrictions: Discontinuance of restrictions against the use of corn by distillers was announced February 5, via an amendment to War Food Order 141.1, effective the next day. Restrictions on wheat and rye remain in effect, export demand for bread grain still being in excess of supplies.

Always readable and informative are the Flashes from Science Frontiers that Marion Julia Drown, of Agricultural Research Administration, prepares for each issue of the Extension Service Review. Clara Bailey Ackerman, of Extension Service, edits the review; phone or write (Ext. 6028).

The County Agent, an article by Fred Knoop in the Winter issue of the Farm Quarterly, tells you what a county agent does, what he can do, and what he cannot do; it is illustrated and comprehensive.

If you have a book published, please let the editor of *USDA* know about it, so that due comment may be made herein if it would interest *USDA* personnel.

FAO: The Food and Agriculture Organization of the United Nations is located at 2000 Massachusetts Ave. NW, Washington 6, D. C. *You may write there directly,* or telephone, for such material as it issues, for instance its press release No. 50 giving details about the Preparatory Commission's Report on the World Food Proposals; No. 52, Director Sir John Boyd Orr's statement on January 24, before the final plenary session of the commission; No. 51, the statement of L. A. Wheeler, U.S. representative, before the same meeting; the Summary of Facts of the FAO Preparatory Commission's Report on the World Food Proposals; Director Orr's address broadcast January 29, on the New World Food Proposals; and press release No. 56, concerned with the preliminary material issued by FAO for the coming world agricultural census.

Henry C. Taylor, the first chief of the Bureau of Agricultural Economics, and now with the Farm Foundation, recently attended and spoke at a seminar on the Extension Rural Health Program. An immediate objective of the program is education of rural people on their responsibility for achieving maximum benefits from the Hospital Survey and Construction Act. A meeting was held in USDA on February 3 and 4 to collate information on the act.

Streptomycin: When Selman A. Waksman of Rutgers spoke recently in Washington during a symposium on antibiotics, he emphasized the fact that the germs were learning how to become resistant to streptomycin. Moreover, since this antibiotic is used largely in treating chronic conditions over long periods, the bugs have a better chance to develop resistance to streptomycin than they do to penicillin, which is generally used for acute infections over short periods. One of the most difficult problems facing those in the field of antibiotic research today is this tendency of germs to develop resistance, and so far the investigators know neither just how an antibiotic kills germs, nor how certain germs develop resistance—whether by death of susceptible and survival of resistant strains, or genetically, or by learning how to survive via an alternative life mechanism.

Farming and Mechanised Agriculture: The third edition of this annual reference book has appeared from Todd Publishing Co., Ltd., New York and London, and contains two articles by USDA people. It deals primarily with the organization of agriculture in the United Kingdom. It discloses that 10 ministries or departments, 28 statutory bodies with numerous committees, 35 national societies or associations, and many local ones today exist to control or develop various sectors of the British agricultural industry. Actually the book contains little about practical husbandry and less about farm mechanization.

Success: A prominent businessman, when asked how he achieved success, replied, "Never do anything yourself that you can get anybody else to do." This echoes Cyrus Curtis' recipe, "I get the best man I can, and then I let him alone."

Dr. F. D. Patterson, President of Tuskegee Institute, and Claude A. Barnett, Director of the Associated Negro Press, conferred with Secretary Anderson recently and thanked him for the improvements which are being made in agricultural extension programs for colored farmers. (Within the past few years nearly 300 additional colored farm and home agents have been appointed through Bankhead-Flannagan funds.) Both Patterson and Barnett are now serving as special assistants to the Secretary on a per diem basis. They were first appointed by Secretary Wickard in 1942, to help promote the wartime food production program. Secretary Anderson asked them to continue serving the Department when he took office in 1945.

Did you know that Commerce and Agriculture have joined in publishing two bulletins on building materials? Recently released is Manufacturing Brick and Tile to Serve Your Community, which follows by a year Will Making Concrete Block Pay in Your Community? The bulletin on concrete block carries a boxed introduction signed by the Secretaries of Commerce and Agriculture. Printed in attractive format and cover with a view to eye appeal, their contents include economic prospects, market analysis, costs of handling the business and of manufacture, and the physical process of making block, brick, and tile. Prior to release they were approved for technical accuracy by members of the industry. The bulletins were prepared by personnel in Bureau of Agricultural Economics, Production and Marketing Administration, and Office of Domestic Commerce. They are the outgrowth of earlier work of a USDA interbureau group studying postwar employment problems in rural communities and are a part of the Industrial (Small Business) Series of Commerce.

First hundred years: Chief Lyle F. Watts, of Forest Service, recently established the Shelton Cooperative Sustained Yield Unit, and approved a cooperative agreement between FS and the Simpson Logging Company for sustained-yield management of 270,000 acres of forest land for 100 years. This unit, located in the south of the Olympic Peninsula, Wash., is the first to be established under the Sustained Yield Unit Act of 1944. Only about 110,000 acres of it now has merchantable saw timber, but foresters have calculated that the entire acreage will supply industries with about 90 million board feet of raw material every year—*indefinitely.* These industries—assured of a regular timber supply by the agreement—will support the towns of Shelton

and McCleary with populations of 4,700 and 1,400 respectively. The company now employs about 1,400 workers, to whom the agreement assures jobs.

Rural health is a special interest of such USDA agencies as Extension Service, Farmers Home (Farm Security) Administration, Farm Credit Administration, Bureau of Human Nutrition and Home Economics, and Bureau of Agricultural Economics. Extension Information (phone 6283) and FHA information (phone 4031) also can provide you with facts. Now being stressed: Building and equipment of more hospitals in rural areas; inducing more doctors to settle in the country; recruitment of health personnel; establishment of local health units; fostering prepaid hospital and medical-service plans for rural people. Cooperative organization to solve rural health problems is being studied by the Cooperative Research Service of the Farm Credit Administration (phone 5952).

Noted sugar chemist: Dr. Charles Albert Browne, Chief of the old Bureau of Chemistry, 1923–27, died February 3, in Washington, aged 76. He was a noteworthy and outstanding carbohydrate chemist, a native of Massachusetts, who graduated from Williams and took his advanced degrees at Göttingen. After a short service at Penn State, he engaged in research at the Louisiana Sugar Experiment Station, but soon after entered the Bureau of Chemistry as chief of its sugar laboratory for about a year, when he left to head the New York Sugar Trade Laboratory until 1923. After being in charge of chemical and technological research until 1940, Dr. Browne retired and became a collaborator. His Sugar Analysis is a standard handbook the world over; he was also distinguished as a historian.

Serelon, Zealon, Karatin: They may be Greek to you but they actually are fibers developed from the proteins of peanuts, corn gluten, and chicken feathers, respectively, by our Regional Research Laboratories.

Penicillin reduces losses from turkey erysipelas, according to Dr. C. G. Gray, Bureau of Animal Industry. Write or phone (6114) Press Service and get No. 338 for details.

Dehydrofreezing: The Western Regional Research Laboratory is progressing with its new method of food preservation, dehydrofreezing. Vegetables and fruits are carried through the first stages of dehydration, during which the moisture content is reduced by one-half, taking only an hour or so, and the main weight reduction occurs. Then the partly dehydrated material is frozen, its lowered water content reducing the load on the equipment. The nutritive values and flavor of the food remain unaffected and some products were judged to be superior in taste to quick-frozen, nondried foods. Dehydrofrozen foods are easier to reconstitute than are dehydrated products.

Mrs. Fuller: Mrs. Leonore Byrnes Fuller, sister of former Secretary of State Byrnes, died February 12 in North Carolina. She was a USDA employee for many years in Extension Service and the Office of the Solicitor. She retired in October 1944.

Eggshells for human food: Do you remember how Mom used to crush the eggshells and feed them back to the hens? She said that was to help them put good shells on their product. Nutritionists have long wished that shells might be used as human food, for they are nearly one-half calcium, a mineral which is sparse in the egg proper. So now Department nutritionists have found that, if eggshells are powdered very fine, they escape detection in scrambled eggs, custards, ice cream, cakes, muffins, popovers, and yeast rolls. You can see what's coming. Mom was righter than she knew.

W. I. Ladejinsky has returned to Office of Foreign Agricultural Relations from a year in Japan during which he served as consultant in drafting land-reform legislation to strengthen that country's economic stability. This he did at General MacArthur's express direction—he was on loan to SCAP's (Supreme Commander for the Allied Powers) Natural Resources Section—along with other experts working on a land-reform program which was approved by the Diet and is now being put into effect. General MacArthur commended Ladejinsky's work to Secretary Anderson. Under the program ownership of about four-fifths of all rented farm land in Japan will transfer from landlords to former tenants, and tenants who do not become owners will have improved tenure conditions.

Ralph S. Trigg has been appointed Deputy Administrator of Production and Marketing Administration. Trigg joined USDA as an assistant to the Secretary in January 1946, after 3½ years of service in the Navy, but has served as deputy to Jesse B. Gilmer in PMA in over-all direction of the agency's activities since November 1946.

World Soil and Fertilizer Resources in Relation to Food Needs: We regret delay in calling your attention to this excellent and stimulating talk by Chief Robert M. Salter, Bureau of Plant Industry, Soils, and Agricultural Engineering, delivered December 30, 1946, before Section O, American Association for the Advancement of Science, in Boston. Write or phone (6114) Press Service for 2721. The talk gives a wholly new slant on world food-production problems, is very thoughtful and well prepared.

The new Assistant Administrator of Agricultural Research Administration is the soil physicist, Dr. Byron T. Shaw, who has been in charge of research in this subject in Bureau of Plant Industry, Soils, and Agricultural Engineering for the past 4 years, and also has directed soil-management and irrigation investigations since March 1945. Born at Paradise, Utah, in 1907, he spent his boyhood on irrigated farms, graduated from Utah State in 1930, did graduate work there, at University of Southern California, and at Ohio State, and acquired his doctor's degree at the last in 1940. He is active in many professional organizations and has wide acquaintance with soil research in the U.S.

Frederick Munchmeyer, who entered the Forest Service in 1906, and spent more than 40 years in Government service, died suddenly while eating lunch with his family, at home in Washington on February 15. Munchmeyer served in the Division of Accounts and Disbursements and with the Insecticide and Fungicide Board, was with the Food and Drug Administration from its establishment in 1927, and became its Executive Officer in 1944. He was 55.

Administrator Gilmer: Jesse B. Gilmer became head of Production and Marketing Administration and President of Commodity Credit Corporation on February 10, after having acted in both capacities since November 1946. A graduate of New Mexico A & M, 1934, Gilmer served successively in AAA, Resettlement Administration, and Farm Security Administration, becoming assistant administrator of the last, and in 1945 secretary of CCC and executive assistant to its president. In August 1945 he was named director of PMA's Budget and Management Branch and in April 1946 deputy administrator of PMA and vice president of CCC.

The larder: It takes 160,000 bees to gather and prepare a pound of honey, half to fetch the nectar, half to wave their wings to evaporate the water off it and to perform other hive chores. The U. S. has 250 billion bees and not enough hives, except those people scratch. And, to change the subject but remain in the larder, tapioca is on the way back. It's coming in again from Dutch East Indies and Madagascar. The small quantity received during the war years, mainly from Brazil, was used for adhesives.

Laryngotracheitis: Fred R. Beaudette, who heads the poultry work at the New Jersey Agricultural Experiment Station, says that this chicken disease got to be quite a problem with commercial growers—and poultry is New Jersey's primary farm industry. It was common for 20 to 25 percent of a flock to become infected and die, death being caused by suffocation from mucous and cheesy concretions collecting in the throat. Beaudette and associates discovered the virus causing the disease; they found that it did not migrate from the throat; they reasoned that vaccination in the vent, on other epithelial tissue, might be just the thing. It was. There was no spread from there either, but permanent immunity was induced. So successful was the method that the disease has practically disappeared from the broiler States like New Jersey. Use of the vaccine is worth half a million dollars to New Jersey commercial poultry growers alone, each and every year.

Plants take aspirin: If you should happen to see a grower trying to give a tobacco plant an aspirin, don't get alarmed, nor conclude he is loco, nor imagine the plant has a headache. It isn't even aspirin for that matter. But chemicals closely related to aspirin—i. e., several of the salicylates—help to control the advance of blue mold in growing tobacco plants. In recent years tobacco growers have been doubling the size of their plant beds just to offset losses due to blue mold, which is particularly destructive in the Southeast. Often planting was delayed, or plants have had to be bought from beds at some distance which have escaped infections. But several salicylates, bismuth especially, proved to be among the best of more than 250 organic substances recently tested by Federal-State workers for blue-mold control.

To market: What is a market? What are marketing facilities? J. S. Larson, of the Marketing Facilities Branch, Production and Marketing Administration, recently supplied a few answers. Said he (in Marketing Activities for January): "(Marketing facilities) are the big, drab, crowded, clamorous, city terminal markets, where there are more fruits, spoiled vegetables, smashed cases, and hand trucks than parking space and suitable refrigeration. They are the weather-beaten shelters along country railroad sidings, where farmers take their crops for assembling into lots sized right for shipment to markets near and far. They are the canneries and other processing plants that dot the big fruit and vegetable production areas, the warehouses equipped to keep food products in condition. They are all those physical means—the good and not so good, the nearly adequate, and obviously obsolete—by which farm products are assembled, transported, stored, and handled on their way through marketing channels."

Weeds, which, however attractive, are merely plants that you don't want, have tenacious ways and disturbing survival power. Theodor P. Haas provides an informative discussion of weeds and their origins under the title, "Unwanted Plants in the Kilmer Botanical Garden," in December 1946 American Journal of Pharmacy.

International wheat agreement: The Department on February 18 issued a summary of a proposed agreement of this sort submitted by the International Wheat Council to the various Governments. This is intended to replace the draft convention

drawn up in 1942 by Argentina, Australia, Canada, U.K., and U.S. The International Wheat Council now comprises representatives of the following additional Governments: Belgium, Brazil, China, Denmark, France, India, Italy, and the Netherlands. Ask Press Service for 346; write or phone 6114. The International Wheat Conference met in London March 18 to discuss this draft.

Emergency: A USDA employee feelingly writes in: "Won't you please say a word (not a kind one) about people who suffer from chronic emergencies; whose every-other-job has to be gotten out supperrush, and who thereby disrupt everybody else's carefully planned work programs. Not to mention the wear and tear on dispositions!"

The Agricultural Experiment Stations of Japan: This is the title of Report No. 59, General Headquarters, Supreme Commander for the Allied Powers, Natural Resources Section, Tokyo, 1946, in case you want to hunt it up via the Library.

Instructions for a discussion: Some of you who form part of discussion groups which consider agricultural problems may be interested in Dare Farmers Risk Abundance? Pamphlet No. 56 of the National Planning Association, 800 21st St. N. W., Washington 6, D. C., from which it may be procured for 25 cents.

A Cotton Advisory Committee was named by the Secretary February 20 to assist the Department and the National Advisory Committee in advancing work under the Research and Marketing Act of 1946, Public Law 773, 79th Congress. For further details see press release 362, write or phone 6114, Press Service.

National Arboretum: Plans for developing the National Arboretum, established by act of Congress in 1927 and so far but slightly developed, were recommended to the Secretary by the National Arboretum Advisory Council in February, to make the tract a "library of living plants" for use of students and plant scientists throughout the world. The tract, covering 395 acres, is located in the District of Columbia between the Anacostia River and Bladensburg Road at M St.

USDA Motion Picture Service, Office of Information, reports that 24 million people saw USDA films during 1946, and there is a system of 76 local cooperating film libraries in every State, T. H., Alaska, and P. R. Facilities of the service include script writers, directors, camera crews, sound stage and recording equipment; it has its own laboratory, and 10,000 prints are circulating. The service started in 1912; a thousand pictures have been released, selected ones having been translated into 22 languages. MPS renders much service to other Government agencies. See also Miscellaneous Publication 574.

Ray Sylvester: A field employee of Production and Marketing Administration has sent in a first-class story about C. R. (Ray) Sylvester, a hero not only of the "Battle of California," but also of rugged going with the Fourth Infantry Division of General Bradley's First Army, where, in the real battle of Hurtgen Forest, he was seriously injured by a German mortar shell. In fact he lost both legs, but that doesn't hold him down, and the same sustained courage that won him the Infantry Combat Badge, Silver Star, Bronze Star, Purple Heart, and two Presidential Unit Citations animates Captain Sylvester in the Administrative Services Division of PMA at San Francisco. Able to walk with a cane, his cheerful outlook and ready grin inspire the more fortunate. Just another great guy, and we do wish printing funds permitted us to do him justice.

Have a smoke? Wars have greatly influenced tobacco consumption. Cigarettes are said to have come into use during the Crimean War and their use increased drastically during the two World Wars. This stimulated production and export of U.S. flue-cured tobacco, and now the distribution of American-blended cigarettes is worldwide. Cigarette exports totaled 20 billion in the first 10 months of 1946, as compared with a prewar average of 5.5 billion; U.S. burley tobacco exports were 30.8 million pounds, declared weight, for the year ended October 1, 1946, as compared with a prewar average of 10.9 million. Flue-cured exports also are up. The cigarettes shared by American fighting men with people in other countries everywhere found favor, built potential demand, proved that courtesy pays dividends, even when it is phrased in the cliché, "Have a smoke?"

Farmers Home Administration farm-purchase borrowers are holding local meetings to see how their business looks alongside their neighbors' records and to discover how to earn more and spend less. As county figures on incomes and loan payments of these 40,000 families are analyzed, interesting developments show up. Though Wallowa County, Oreg., is far from Iowa, the 9 borrowers there said hogs accounted for 40 percent of their 1946 gross incomes ranging from $7,000 to $8,200. Elkhart County, Ind., families found their average gross was $6,412 last year compared with $1,951 in 1940, and their loan payments this winter averaged $1,094 compared with $290 in 1940. Borrowers in Hamilton County, Ohio, spent the day talking about better production and heard reports from their 100-Bushel Club, Ten-Litter Club, and 400-Pound Butterfat Club.

T. L. Swenson, Special Assistant to the Chief of the Bureau of Agricultural and Industrial Chemistry, and former Director of its Western Regional Research Laboratory, has resigned to take charge of the food research program of Stanford Research Institute.

Recommended reading: The Principles of Poor Writing, Paul W. Merrill, Scientific Monthly for January; A Study of Cumulative Results in Dairy Improvement on Maine Farms by Horn Elevation, John Gould, Farm Quarterly, Winter 1946. Sound sense plus laughter in both cases. The editor has some reprints of the first article; to get one *write* T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Mordecai Ezekiel, economist in the Bureau of Agricultural Economics, has resigned to go to FAO. There, in H. R. Tolley's Division of Economics and Statistics, he can expand into international fields his present work on the desirable balance between agricultural and industrial development. Other phases of the United Nations' program, such as the International Bank, will provide points of contact where his experience will be valuable, for international study and foreign travel are nothing new to him.

Harry Carr, of Production and Marketing Administration's New York office, writes about their new Directory of Federal-State Market News Services in the Northeastern States. This is the first attempt, as far as he knows, to list for any U. S. region all daily, weekly, and other frequently issued news reports on farm commodities—Federal, State, or Federal-State. It will run about 35 pages.

Charles L. Harlan, who headed the livestock and poultry statistical work of Bureau of Agricultural Economics, has retired after 26 years of Government service. An outstanding authority on livestock statistics, he led in developing methods of estimating numbers, production, and supplies of livestock and livestock products. Born in Iowa, he was a graduate of Michigan, and later studied agricultural economics at Iowa State. Secretary Henry C. Wallace induced him to return to USDA after World War I to engage in the line of work he pursued until retirement. Earlier he had been a specialist in livestock marketing and distribution in the old Office of Markets and Rural Organization.

Income tax on annuities: Annuities of retired Federal employees are exempt from Federal income tax *until* they have received an aggregate amount equal to their contributions to the retirement fund *and except* for 3 percent of total contributions. Suppose an employee contributes $2,400 and gets an annuity of $100 a month; $6 of that is reported as taxable income, being 3 percent of $2,400. *But* when he has received his $100 a month long enough to total $2,400, his entire annuity is taxable income. If you want more details write the editor of *USDA* who will try to have them sent you.

Executive Order 9830, February 24, is the document which amends the Civil Service rules and provides for Federal personnel administration. Ask your personnel officers about this.

Graduate School: Director Lewis H. Rohrbaugh, of the USDA GS, tells its story readably and in detail in March 1 Higher Education, a semimonthly publication of the U. S. Office of Education, Federal Security Agency.

Foot-and-mouth disease legislation: On February 28 the President signed S. 568, which authorizes the Secretary of Agriculture to cooperate with the Republic of Mexico in combating foot-and-mouth disease and rinderpest. This is Public Law 8, Seventy-ninth Congress. A Mexican–U. S. Agricultural Commission met promptly in Washington to plan an operational campaign to stamp out the disease in Mexico and prevent its entry into the U. S. The Under-Secretary of Animal Industry, Ministry of Agriculture and Development, was chairman of the Mexican section; L. A. Wheeler, Director of Office of Foreign Agricultural Relations, of the U. S. section.

Technological Gains and Their Uses: This is a profoundly thought-provoking, fact-packed article in Science for February 28, by Frederick C. Mills of Columbia. It is a review of some recent economic changes, 1899-1945; it covers only 4 pages, is a bit difficult to read, but worth the expenditure of energy so dissipated, and then some.

Two Blades of Grass: The book of this title, by T. Swann Harding, discussing the scientific achievements of the USDA throughout its history, as well as those who made these achievements, now actually exists. It has 350 pages, illustrations, and a fine index; it is attractively bound in green. The publisher is University of Oklahoma Press. Whether it is a good book or not is decidedly not for us to say. Judge for yourself. It became available in bookstores March 20. Procure from your own bookseller or borrow from the USDA Library.

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USDA

FOR APRIL 28–MAY 12, 1947

Invitation

THE Secretary has invited every employee of the Department, field and Washington, to recommend employees for Distinguished and Superior Service Awards. When achievements are by a team, project group, or organization unit which deserves consideration for the Distinguished or Superior Service Award, and it is unfeasible to recognize particular individuals, recommendation should be made for the unit citation. *Address these recommendations to your agency nominating committee.*

Nominations for the Distinguished Service Award should be based on achievements of national or very broad significance. The award will be presented only for the highest type of achievement in the Department's fields of service. Nominations for Superior Service Awards may be based on unusual or meritorious achievements in any field of activity in the Department. Consideration should be given to ingenuity in relation to opportunity in accomplishing the achievement.

See Secretary's Memorandum No. 1186 for details. Secure copies from Secretary's Records Section; ask your personnel officer or phone 3337.

PMA organization changes

ON March 14, Secretary's Memorandum No. 1118, Supplement 10, announced that, effective immediately, the following offices and branches of Production and Marketing Administration were abolished: Special Commodities Branch, Materials and Equipment Branch, Office of Requirements and Allocations, Office of Foreign Programs Coordination, and Office of Price. This memorandum superseded the applicable portions of Secretary's Memorandum No. 1118, as amended.

On the same day PMA issued administrative and organizational memoranda announcing the transfer from these agencies of such functions as were to be continued. In addition, it announced the abolition of the Office of Transportation Officer, as of the close of business March 31, its continuing functions going to the Marketing Facilities Branch the next day.

How To Put Your Information Across to Farmers: This excellent article by Dr. Gladys Gallup, of Extension Service, appeared in Better Farming Methods for March. Not only readability but radio programs are discussed. If you want to know what farmers like to read and hear, read it.

Brief but Important

Research and Marketing Act: Various advisory committees to assist in planning programs under Public Law 733, Seventy-ninth Congress, continue to be appointed. Membership of the deciduous fruit, rice, and transportation committees was announced March 5. Should you want details about the membership of all committees appointed, simply get in touch with Press Service and ask for releases announcing appointments of advisory committees to assist in planning programs under the Research and Marketing Act of 1946. Write, or the phone is Ext. 6114.

Solvent extraction method for cottonseed oil: The staff of the Southern Regional Research Laboratory at New Orleans has developed a new method for solvent extraction of oil from cottonseed that also removes objectionable seed pigments in the same operation. It provides for complete recovery of purer oil, leaving a lighter colored meal than usual, unmodified by heating, with promise of wide use as a source of industrial proteins and of protein for feed. The cottonseed industry regards the development as significant and opportune and is closely watching the results of pilot-plant operation at the laboratory. Write, or phone (Ext. 6114) Press Service for 423 to get details.

Farm-family clothing: The clothing specialists met in Washington a while ago with Extension Service and Bureau of Human Nutrition and Home Economics specialists; they came from 42 States and P. R. They concluded that American farm families want better fitting, colorfast clothes that do not shrink or stretch—as don't we all?

Production credit: As 1947 began, the use of production credit associations by their farmer members started off with a bang; 37,000 farmers borrowed 65 million dollars to chalk up an increase of 16 percent in the number of loans and 23 percent in the amount borrowed, compared with the same month last year. But though more farmers were using their associations, those already having loans did a good job of paying off what they had borrowed previously. Their repayments totaled almost 42 million dollars in January, or 25 percent more than in the same month in 1946. As February rolled around, the 504 production credit associations had 148,000 loans outstanding in the amount of 245 million dollars. That was 6 percent more loans and 18 percent more money than a year earlier.

2,4–D, A Potent Growth Regulator of Plants: This is the title of an excellent and fact-filled article in February Scientific Monthly by H. B. Tukey, Department of Horticulture, Michigan State College.

Forests: We have 75 million denuded and poorly stocked acres of forest lands that should be planted to trees—one-sixth of the Nation's commercial timber land. Since 1926 only 6,483,632 acres have been planted; of these only 4,243,788 represent successful plantations today. We should do better than that. For details ask Press Service for 449; phone Ext. 6114 or write.

Transportation requests will hereafter require only one, not two, of the traveler's signature. The new form is explained in General Regulation 108, November 21, 1946. No longer will you have to fret, embarrassed, holding up the line, while you laboriously fill in spaces on a form as issuing officer and again as the traveler, in order to get your ticket. Moreover the original suggestion came from a USDA worker, G. H. Gilbertson, Office of the Secretary, who was officially commended for it.

The Wheats of Classical Antiquity: A monograph issued by Johns Hopkins Press, under this title, was prepared by Naum Jasny, of Office of Foreign Agricultural Relations, and has drawn remarkably favorable reviews from the best of scientific and technical journals. The author has worked with most sparse and refractory materials, surmounting many difficulties. His volume is of prime interest to historians, plant geographers, botanists, agronomists, and almost anyone else in the field of agriculture. It forms a useful and valuable contribution to knowledge about the wheat crops grown in the Mediterranean region in classical times.

Exhibit pictures: The Bureau of Agricultural and Industrial Chemistry has issued an attractive M. P. (No. 617), entitled "Exhibit Pictures from the Four Regional Laboratories." It contains photographic reproductions of exhibits planned to illustrate the progress these labs have made on projects completed or under way. Unique and instructive, it may be in short supply at present, but it is hoped more copies can be provided eventually. The labs themselves also are depicted therein.

Bernard A. Linden: A couple of weeks ago we stopped by Linden's South Building laboratory to comment on the sudden, tragic deaths of Munchmeyer, Calvary, Linden's own supervisor, Hunter, and others in Food and Drug Administration, when Linden remarked he was just out of the hospital and now also had cardiac involvement. Linden died March 9 at his home in Washington. He was 53 and had entered the old Bureau of Chemistry 37 years earlier, going with FDA in 1927 when it was created. He was well known as a food bacteriologist and an authority on food spoilage and food poisoning. FDA has been extremely hard hit in recent months, most of those dying suddenly having earlier been USDA employees. Linden attributed this in part to intense wartime activities of the staff, in what proved to be our last conversation.

Superior Accomplishment Awards: Pay increases as rewards for superior accomplishment have been awarded recently to the following employees: Farm Credit Administration—Ralph U. Battles; Farmers Home Administration—Julius J. Dardin, Rosalie Q. Martinez, John H. Purnell; Forest Service—Victor B. Gardiner, Louis H. Hagen, Jay B. Hann, Henry F. Rabb, Vernon R. Soper, Seymour J. Johnson, Raymond G. Bell; Soil Conservation Service—Roy B. Babb, Roy T. Tomlinson, E. Lucille Smith, Francis G. Meyer, Farnham F. Hutchison, Elizabeth G. Knight; Bureau of Animal Industry—Alfred H. Juhala; Production and Marketing Administration—Maurice T. Harris.

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Calvin Grant Church died at Los Angeles February 27 at age 67. Church entered the Department in 1903 as scientific assistant in Washington, D. C. He spent 6 years on sugar investigations and 4 on environmental studies of corn and cantaloups. In 1917 he was transferred to Los Angeles where he spent the next 27 years at the Laboratory of Fruit and Vegetable Chemistry. His work during this period was citrus (including composition, maturity, and byproducts), avocados, cantaloups, sulfured fruit, and composition and utilization of many other fruits. He was author or coauthor of at least 11 bulletins or circulars and of many articles in various journals. He took his B. S. at Maryland Agricultural College, his M. S. at George Washington University, and a year of postgraduate work at Johns Hopkins University. He retired on account of ill health in December 1942.

John M. Corliss has been appointed to head the Division of Gypsy Moth Control, Bureau of Entomology and Plant Quarantine, succeeding Ralph A. Sheals, who resigned March 15. A native of New Hampshire, Corliss entered Federal service in 1917, and has been in charge of gypsy moth control in New Jersey, New York, and Pennsylvania since 1943. His new headquarters are at Greenfield, Mass. Sheals, who has headed this division since 1942, now—after 30 years of Federal and State service in quarantine and insect control work—joins an industrial concern engaged in large-scale insect-control projects.

Arthur W. Greeley has become supervisor of the Lassen National Forest at Susanville, Calif. He is the son of William B. Greeley, former Chief of Forest Service, and has been an assistant in FS's Division of Timber Management. He is a native of Washington, D. C., but when his father left FS to head the West Coast Lumberman's Association, he went with the family to Seattle. He graduated from the University of Washington, took his master's at Yale, and entered FS in 1935.

A few copies are available for distribution of the following—meaning we have on hand about 75 copies of each—mentioned before in *USDA:* Buried Treasure, a mimeographed talk on scientific and research methods and publications; They Understand Not One Another's Speech, mimeographed talk on improving scientific publications; How a Feature Writer Can Avoid Making Money, and Translating Agricultural Research into Readable Newswriting, mimeographed talks on popular scientific writing; Now They Eat Better in Taos, copy of an article on improved human diets as taught in Taos County, N. Mex., by the old Farm Security Administration medical co-op there; and copy of an article called "The Social Significance of Scientific Research." Write (please do not phone) T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Dividends from agricultural research feature the annual report of the Agricultural Research Administration. For more detail, get 512 from Press Service; write, or phone Ext. 6114, or see a copy of the report through your USDA Library facilities.

A school in the fundamentals of peach production, in which the Department participated, was held recently in Spartanburg, S. C., and made the front pages of local papers. A copy of the Spartanburg Herald of March 5, demonstrating this, was sent us by Oliver I. Snapp, of Bureau of Entomology and Plant Quarantine, stationed at Fort Valley, Ga. J. C. Dunegan, USDA plant pathologist at Beltsville, also spoke.

Dutch elm disease is present or threatening to the entire area from central New England to Chesapeake Bay, extending westward to central Ohio. Quite recently USDA scientists have shown that DDT sprays offer a promising means of protecting living and healthy elm trees against the disease. The best and most economical spraying schedules remain to be worked out. Communities that value their elms and are willing to finance community spraying campaigns now have something to go on. For more detail get 508 from Press Service; write, or phone Ext. 6114.

Your Retirement System: That's the name of a booklet covering the entire operation of the Federal employee retirement system. Civil Service Commission issued it. It costs 10 cents a copy or $7.50 for 100, and it may be purchased from administration funds. *Bureaus submit purchase orders directly to Superintendent of Documents.*

A Summary of the Grain Export Program has been issued from Production and Marketing Administration. It covers operations to February 1, is dated March 5, and may be had by phoning (Ext. 6114) or writing Press Service for 649.

Nutrition in Europe: Dr. H. W. Sebrell, Public Health Service, who accompanied Herbert Hoover on his most recent survey of Europe, spoke on this subject in the auditorium in Washington, March 10. Rural people feed better than urbanites; calorie shortage is universal; weights are down, children fail to grow, child and adult mortality rates increase, tuberculosis is widespread. People lack muscle tone, are apathetic, unable to do mental or physical work well. Body weights of adult males average 10 pounds lighter than here. Famine edema (abnormal accumulation of water in the tissues) is a real threat; causes sudden death via heart. The infant mortality rate is 92 per thousand during the first year after birth, as against 65 in 1934–38. Pernicious anemia is very common. Nutritional anemia and vitamin-deficiency diseases like incipient scurvy, beriberi, and xerophthalmia are rarely found, despite the fact that the vitamin intake is shockingly low. Dr. Sebrell visited Germany, Austria, Italy, France, Belgium, and the Netherlands.

REA's billion: Rural Electrification Administration loans now total one billion dollars, made to 1,011 borrowers, including 931 co-ops, 40 public power districts, 20 other public bodies, and 20 power companies. Of the billion, 89 percent went for electric distribution systems, 9.6 for generation and transmission facilities, and 1.4 to finance wiring and plumbing in the homes of consumers and for electrically operated appliances and equipment. Loans are advanced to borrowers only as needed to make payments. Since 1935, REA borrowers have energized more than half a million miles of power lines serving 1.7 million rural consumers in 46 States, Alaska, and Virgin Islands. As of January 1, 1947, payments of $20,052,590 had been made ahead of time, only $392,941 was more than 30 days overdue, only one foreclosure had been made, and $126,098,602 had been repaid. When REA was created in 1935, only 750,000 farms (11 percent of all) had power-line electricity; on July 1, 1946, this had increased to 3,106,775, or 53 percent of all.

Inside information: Bureau of Animal Industry experts on the interior announce that internal parasites reduce the value of market hogs as much as 50 cents a head, via ultimate condemnation of parasitized livers, kidneys, casings, and other affected parts. For more detail write, or phone (Ext. 6114) Press Service for 564.

Sweetpotatoes: Studies in progress by Boyce D. Ezell, Marguerite S. Wilcox, and Margaret C. Hutchins, at the Plant Industry Station, Beltsville, Md., indicate that the sweetpotato is about as good a source of vitamin C as the tomato. Other work shows that, in addition, the sweetpotato is excellent as a source of thiamine, riboflavin, provitamin A, calcium, magnesium, potassium, sodium, phosphorus, chlorine, sulfur, iron, protein, and fats. And, of course, the sweetpotato surpasses even the white potato as a source of carbohydrates. As a school boy we sorrowed over the fate of Marion and his men, on an exclusive diet of sweetpotatoes in Revolutionary War days—but no more. No wonder the redcoats found them tough customers—Marion's men, that is, not the sweetpotatoes.

P. R. school lunch: The school lunch program is a very important item in Puerto Rico, where only half the children of school age are in school, but where two-thirds of these either get wholly *free* lunches in school or benefit at milk stations. Family income in P. R. averages only about two-fifths that in the poorest State in the Union. The program is managed by the central Government, which buys and allocates the food, and pays the staff hired to implement it. Parents shop around first to see whether their children will get lunches; if so, then they enter them in school! The P. R. Government contributes not 17 cents per U. S. Federal dollar, as is required in the continental U. S., but $3 per dollar. Many kids taste their first milk in school; thousands get their only nutritious meal of the day there. One girl of 9 who had no teeth sprouted a full set after having been on school lunches a year or so. Page Mr. Ripley.

Farmers Home Administration: The Progressive, a weekly published at Madison, Wis., contains an article on the work of FSA-FHA under the title "Democratic Planning Works," pages 8 and 11 of the issue dated March 17.

Farm income: Farmers' cash receipts will run 22 percent higher during the first 4 months of 1947 than in the comparable period last year. For more details get The Farm Income Situation released April 4 from Bureau of Agricultural Economics (phone 4407).

All-out war on the golden nematode has been declared by scientists in the Bureau of Entomology and Plant Quarantine. This alien plant pest can work havoc in potato fields, but so far it exists here only on 2,600 acres of Long Island potato land, its presence having been first suspected in 1934. It is a microscopic soil creature, shaped like an eel, thin as a hair, one-fiftieth of an inch long. For more detail get 548 from Press Service; write, or phone Ext. 6114.

You might want to know: That research advisory committees for dry beans, soybeans, peas, and flaxseed have been appointed to serve in connection with the Research and Marketing Act of 1946, No. 534; that USDA plans for 1947 potato price supports have been announced, No. 542; and that the Commodity Exchange Authority's report on the October 1946 break in cotton prices, entitled "Collapse in Cotton Prices, October 1946," has been released, and is summarized in No. 531. Request by number from Press Service; phone Ext. 6114, or write.

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50 Facts about UNRRA: This is the title of a sort of premature swan-song publication from UNRRA in which pictures talk as well as words. Procure it from UNRRA's Office of Public Information, 1344 Connecticut Ave., NW, Washington 25, D. C., if you want to find out what UNRRA is, was, and did.

Photoperiodism: Science Digest for April contains a most readable account of the experiments which led Henry A. Allard, retired USDA employee, to the discovery that day length affected the growth habit of plants. It is entitled "Mystery of the Tropical Plants." Allard's first observation solved the mystery of why Maryland Mammoth tobacco would not flower around Washington—long days prevented that.

The Wallaces of Iowa is a book by a former USDA employee, now editor of The Land, Russell Lord. After many delays Houghton, Mifflin Co. have at last published it. It begins with the greatgrandfather of Henry Agard Wallace, who came here from Scotland, but deals primarily with the activities of the three Henry Wallaces of Iowa—Uncle Henry, Henry C., and Henry A. The last two were Secretaries of Agriculture; the first suggested Iowa "Tama" Jim Wilson's name to President McKinley as Secretary. The book is big, comprehensive. and rather expensive.

Heredity: The editor's friend, Cyril D. Darlington of London—he directs the John Innes Horticultural Institution—sends the prospectus of Heredity, an International Journal of Genetics, to be edited by him and Ronald A. Fisher of Cambridge. It will appear three times per annum; orders are to be sent to Messrs. Oliver and Boyd, Ltd., Tweeddale Court, High Street, Edinburgh, and it will be addressed to botanists, zoologists, physiologists, medical research workers, social scientists, agriculturalists, and even physicists and chemists.

The Lazy Gardener: This charming and seductive book by William C. Pryor of Soil Conservation Service (Longmans Green published it) attracts even those to whom physical exertion is revolting, and who would have gardened so poorly during the war as to merit incentive payments for *not* gardening. Well-illustrated, delightfully written, the 220-page volume ambles along like an entrancing and informative friend, giving you information in spite of yourself about success with your lawn, raising vegetables, herbs, landscaping, transplanting, and multitude of other problems which plague industrious people who really get the most out of life. The chapter headings are engrossing—Why Bother With a Garden? Gardening in Bed, How to Grow Calluses, The Last Word, More Last Words, Seasonal Planting Dates. This is Bill's first effort alone; he has always collaborated before. May we slyly suggest that he go it alone henceforth and that you get busy and read his book, and then garden for all that's in you! More power to USDA's 1947 garden program.

Cheese! War Food Order 15, which went into effect February 16, 1943, to aid Government in procuring cheese for military and lend-lease needs, was terminated March 24, 1947. Approximately 1,205 million pounds of Cheddar cheese were set aside under it during 1943–46. The results of this program reflected a high degree of cooperation by both manufacturers and assemblers. You will find details in No. 628; get it from Press Service; phone 6114, or write.

Big game animals: Forest Service has published the results of its big-game census on 152 national forests and finds the population up 300 percent above 25 years ago. In some places there is now an acute housing problem! Deer showed the greatest increase, the all-time peak, in 1946, being nearly 2 million; but elk, moose, antelope, and black bear populations have all gone up sharply. Only bighorn sheep decreased—from 13,000 in 1921 to 9,000 in 1946. You will find details in No. 603; phone Press Service, Ext. 6114, or write in to it.

How Big Is the Farm Business? We unfortunately lack space adequately to analyze this important and highly informative article by Elco L. Greenshields, which leads off the March issue of the Agricultural Situation, published by Bureau of Agricultural Economics. Do get it and read it; Library also has copies. Did you know that American farmers operate the largest private business in the world, that their plant equipment and livestock and crops on hand were worth over 90 billion dollars last year, and that their 5.8 million independent establishments each produce an average of from $2,500 to $4,000 worth of products annually? Did you know that 5,000 really big farm enterprises had a production valued at from $100,000 to a million dollars in one year? Or that the top third of the farms produced 80 percent of the total output? Read and learn.

T. R. Stanton, oat expert extraordinary of Bureau of Plant Industry, Soils, and Agricultural Engineering, covers the oats sector capably in the Spring issue of Land Policy Review (printing-fund shrinkage will prevent appearance of the Summer number, by the way) under the title, "Oat Crops in Demand: Improved Varieties." Improved varieties have meant 40 million dollars more annually for farmers in Iowa and in Minnesota, and over 20 millions more in Wisconsin and in Illinois. Research dividends are enormous. See also the article on Your Agricultural Statistician by W. F. Callander in the same issue of the same magazine published from Bureau of Agricultural Economics.

Food and World Recovery: This is the title of an excellent survey of the current world food picture in the form of a speech by Secretary-General D. A. FitzGerald of the International Emergency Food Council, delivered in Minneapolis, March 6. Procure it from IEFC, 1735 De Sales St. NW, Washington, D. C.; ask for No. 28.

Locker plants: About 3⅓ million families, approximately 13 million persons, are now being served by frozen-food locker plants, according to a recent Farm Credit Administration survey. Locker plants increased in number from 4,600 in 1943 to 8,000 in 1946, and still more are being opened as materials permit. Many plants have 100 percent of their lockers rented plus waiting lists; 99 percent of all the lockers installed are rented.

International food supply program coordination: Secretary's Memorandum 1189, March 6, designated Stanley Andrews to act in liaison capacity between USDA and other Government and private agencies on all matters relating to international food supply programs. Get copies from Secretary's Records Section, Plant and Operations; phone Ext. 3337, or write.

Value of soil moisture measurements: Research Achievement Sheet 73 (P), procurable from Dallas Burch, Agricultural Research Administration, tells how a method of estimating soil moisture conditions, developed by a group of USDA scientists in dryland agriculture work, has been a great boon to wheat growers on the Great Plains. For the findings enable the growers to decide whether or not to plant wheat and thus prevent many crop failures. They also act as an incentive to the adoption of improved practices which provide maximum water storage in the soil before seeding. The method is applicable to more than 30 million acres a year.

1947 potato price support: The 1947 USDA price support plans for potatoes were announced by the Department March 13; write, or phone (Ext. 6114) Press Service, asking for No. 542 to get details.

Soil, Humanity, and Politics Face the Atom, by Mark Graubard, a former member of the Department's staff, is written as interestingly and as dramatically as any novel, and is about a subject much more fantastic than any creation of fiction. It has been printed for distribution by the Extension Service, College of Agriculture, University of Maine, Orono, Maine.

Foot-and-mouth fight: To June 30, 1947, Mexico expects to make a contribution of $9,350,000 covering expenses for services, equipment, and supplies and indemnities to owners of slaughtered animals; the U. S. contribution will be $7,500,000. Much the larger part of the U.S. contribution and much the smaller of the Mexican will be used for indemnities. Mexico pays for hogs, sheep, and goats slaughtered; the U.S. for cattle. Mexico probably cannot increase its expenditure rate; but it is agreed that the U. S. must increase its, if an effective 12-month campaign against the disease is to be carried out properly.

Soil and Steel, by P. Alston Waring and Clinton S. Golden (Harper & Bros., N. Y.), is a compact book with index written by a farmer and a city worker and dedicated to explaining the interdependence of farmers and industrial labor. It discusses such things as natural patterns of cleavage, unionism, and the relation between organized workers and farmers, farmers and wage earners in full employment providing an economy of abundance, and so on. On pages 96–97 Dan Braum, of Office of Personnel, is quoted with approval. A bit heavy in spots, the book lightens up from time to time and, if only because it provides an unusual discussion of a novel problem, it should have the attention of USDA personnel.

Vegetable factory: New Jersey Farm and Garden for December 1946 told about former Staff Sergeant Andy Sinclair's southern Jersey vegetable factory, which he cultivates with rich manure and cover crops, and provides with an overhead irrigation system piped the entire length of the 1,000-foot farm. This furnishes fine spray when rain lacks and sufficient warmth when early frosts impend to maintain his growing vegetables free from frost damage. Between early March and late November he can work in dandelions, spinach, and leeks, one after the other, on the same acre. Last year he had a sixth-acre of endive, a quarter-acre each of radishes, parsley, and broccoli, a fifth-acre of string beans, a half-acre of beets, two-fifths of cucumbers, and a full acre each of lettuce and carrots. Hard work, correct planning, and a Farmers Home Administration farm-ownership loan enable Andy to raise $1,000 cash on each of his five acres in addition to the vegetables.

"Technical albumen": Did it ever occur to you that some egg white always clings to the shell when you break a raw egg? Fact is, about 1 to 1½ pounds of white is left in the shells of every case of eggs broken commercially. This is removed by whirling the shells in a centrifuge and, although unsuitable for food, it has industrial uses and sells as technical albumen for adhesives, paper sizing, coating for leather, and so on. And remember, when the egg is cold more white than usual clings to the shell and eludes the skillet.

Employee loyalty: Executive Order 9835, issued March 21, prescribed the procedures for administration of the Federal Government employees' loyalty program in the Executive Branch. You have probably seen accurate and sufficient digests of this order in the newspapers, but, if you want to know more about it, consult your personnel officers who should have copies.

Diet and soil productivity: It is true that the dietetic richness of plants and animals is largely governed by the fertility of the soil which produces them. It is also true, as Olive Sheets, of the Mississippi Agricultural Experiment Station, announced recently, that the nutritive condition of rural people is closely related to the soil productivity. Families living on poor soil can serve milk, meat, and eggs less often than those on better soil; they also produce less of these and other foods; finally, they are poorer than families on good soil.

The blooming fences: If this sounds very English, it isn't meant to. Soil Conservation Service advocates blooming hedges, planted on contour, to act as fences. Rose hedges are ideal. The multiflora rose, properly handled, serves excellently. Such hedges conveniently and permanently mark contours, they check eroding soil, after 3 or 4 years they will hold back livestock, they have natural beauty and protect birds, beneficial insects, and small animals. Finally the rose fruits or hips are high in vitamin C—they were widely used in jelly making in England during the war—and provide feed for birds and animals. Oddly enough you will find "live fences" discussed in some of the earliest reports issued by the old Department of Agriculture when it had bureau status under a commissioner.

On Scientific Writing: There seems to be a healthful epidemic of good writing about good writing. The latest we have seen bears the title mentioned before the colon, is by William F. Ogburn of the University of Chicago, appears in the American Journal of Sociology for March, and merits your attention. Clarity, associations, referents, pictures and reality, emotional words, verification, fullness, accessibility, fairness, thesis, selection, readability, short sentences, concrete nouns, useless words, identification with the reader, emphasis, personal pronouns, pattern, and statistics are all discussed, and possibly the author has reprints.

Liberia: Charles E. Trout, Negro county agent in Tuscaloosa County, Ala., has returned from 2½ years as agricultural adviser to the Liberian Government. When he went there, in 1944, the country's agricultural appropriation was $6,000 a year; for 1946 it was $40,000. There was but one small experiment station in the former year; there were 13 in 1946, though some were discontinued in 1947 to be replaced by a large, modern, central station. Increasing rice supplies to overcome a cereal crisis was Trout's first job. Veteran field agent Tom Campbell recommended Trout for this assignment.

The farmers' share of the consumer's dollar was 53 cents in December and January, 1 cent below November and also January 1946, and 2 below the record high of 55. For details get from Bureau of Agricultural Economics the Marketing and Transportation Situation released March 19 (phone 4407).

Domestic Dutch elm disease quarantine: This quarantine has been revoked, effective May 1. It was intended to retard the spread of Dutch elm disease, became effective February 25, 1935, and was last revised October 1, 1941. The revocation notice states that controlling the movement of articles covered by the quarantine is an ineffectual means of preventing the spread of the disease, and appropriate action by individual States can be quite as effective. The insects that carry the disease also move considerable distances by natural means, and the quarantine is impotent to prevent their flight. For details get No. 666 from Press Service; write in, or phone Ext. 6114.

Students of Sevier County, Utah, schools not only did admirably helping farmers harvest their 1946 crops, but they produced and sent in to Field Service Branch of Production and Marketing Administration a complete report in full detail, replete with charts and tables, showing what they harvested, how much they earned, how many participated from each school. It was fine patriotic service and it also developed ability, character, and pin money simultaneously. Cheers!

Valuable gift: A personal gift of bound and unbound volumes of several scientific publications have been sent by Dr. Max A. McCall, assistant chief of Bureau of Plant Industry, Soils, and Agricultural Engineering, to the College of Agriculture, University of the Philippines, the library of which was bombed out by the Japanese, few volumes being saved. Dr. McCall's gift is one of the invaluable kind that is long remembered and endlessly useful. Various divisions of his bureau are also sending the library duplicate reprints and other papers on agronomy, mycology, plant pathology, and nematology.

Physical research activities of the Department were coordinated under the Agricultural Research Administrator by Secretary's Memorandum No. 1187, March 19. The Administrator was authorized and directed to examine all current activities of all agencies—economic research excepted—to review and approve proposals and projects before initiation, to advise and consult with heads of agencies concerning the planning of research projects and programs, and to make reports and recommendations to the Secretary.

More research advisory committees: Appointment of feed and of tree nuts advisory committees to help develop activities authorized by the Research and Marketing Act of 1946, was announced by the Department March 20, and of the vegetable committee March 26. Write, or phone (Ext. 6114) Press Service for Nos. 612 and 646 for details as to membership and functions. Or ask for No. 658 for details of a 2-day conference held by the Department and the Potato Advisory Committee March 24–25.

Brucellosis: Dr. Alice C. Evans, now of the National Institute of Health but who, while in the Dairy Division of the Bureau of Animal Industry beginning 1910, showed the close relationship between Bang's *"Bacillus abortus"* and the so-called *"Micrococcus melitensis,"* has an excellent review entitled "Brucellosis in the United States" in the American Journal of Public Health for February. Evans' work demonstrated that the human disease called undulant, Malta, or Mediterranean fever, contracted by contact with infected goats, was caused by an organism almost indistinguishable from that producing Bang's disease (contagious abortion or brucellosis) in cattle. The germs were not, as had been supposed, of different genera. This was a medical discovery of the first importance made in the USDA.

Getting to Beltsville's Agricultural Research Center: All employees may be interested to know that bus service is now available from Washington, D. C., to the Agricultural Research Center, Beltsville, Md., leaving Greyhound Terminal at 7:15 a. m. Monday to Friday inclusive, arriving at the Center Building at 7:50, leaving there at 4:40 p. m., and arriving in Washington at 5:15. This will be a boon not only to workers at the center but also to all who have to visit it occasionally, and that includes many field as well as Washington employees.

Dr. Maurice S. Shahan, who has been appointed codirector of the Mexico City office from which the Mexican and U. S. Governments will combat foot-and-mouth disease, has been connected with Bureau of Animal Industry since 1926, specializing in virus research since 1932. A native of Nebraska, he graduated from Colorado A. and M. Lic Oscar Flores, Mexico's Under Secretary of Livestock Industry, directs the office.

Multiple management: Thomas R. Reid (son of our Personnel Director Reid) spoke on the multiple management system at the March 20 meeting of the Department's key management representatives under the Management Improvement and Manpower Utilization Program. Mr. Reid, who is Director of Human Relations at McCormick & Co., Baltimore, said the system, developed some 15 years ago by McCormick's founder, provides for greater employee participation in management. All employees choose boards which are set up to include all kinds of workers—such as senior, junior, and factory boards. This system of management has been used successfully by other private industry and has also been adapted effectively to some Government agencies.

Sugar Rationing Administration: Secretary Anderson, in Secretary's Memorandum No. 1190, March 31, established this Administration, effective April 1, in the Department, to carry out the functions assigned to the Secretary of Agriculture by the Sugar Control Extension Act of 1947. OPA personnel were transferred to USDA. Irvin L. Rice, formerly of OPA, is Acting Administrator; Seymour Friedman is Deputy Administrator. Get release No. 682 for details; write, or phone Press Service (Ext. 6114). And keep your ration book. One stamp for 10 pounds of sugar became good April 1, and others for a similar amount will probably become good July 1 and October 1. *This sugar must do for home canning as well as for regular home use; no stamps will be validated for home canning only.* Each consumer will probably get 35 pounds this year, compared with 25 last year.

They were not Brahmans: W. F. Dickson, agricultural attaché, writes clear in from the American Embassy at New Delhi, India, to say that our statement in the January 6 *USDA*, page 4, regarding the two young "Brahman" bulls and heifers at Beltsville was wrong. Says Dickson: "Actually, these calves were Red Sindhis bred at the Allahabad Agricultural Institute, Allahabad, India. This American institution, which was under the direction of Dr. Sam Higginbottom, the famous agricultural missionary, for many years, is one of the outstanding agricultural colleges in India and for years has specialized in improving the Red Sindhis." Thanks. But that red *you* see is reflected from the editorial face.

Wallace Kadderly, former head of USDA Radio Service, now a radio station farm director in Portland, Oreg., has flown, with others, to Australia and New Zealand, at the request of the Australian Broadcasting Commission, to advise and consult on agricultural radio service programming down under.

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USDA

FOR MAY 26–JUNE 9, 1947

Crop Reporting Service

FEW OF US ever stop to consider the fundamental importance of that Department activity which began even before there was a Department. For, while the Crop Reporting Service was made a formal function after the Department was founded in 1862, hundreds of farmers had for many years been volunteering information to the Agricultural Division of the Patent Office regarding crop conditions in their localities.

Farmers claimed they had much less information about the volume of production than the people who bought their products. They needed impartial estimates of crop and livestock production during the growing and marketing seasons to fortify their bargaining position. For many years now the Crop Reporting Service has gotten an invaluable body of basic information by mail from a cross section of farmers who, voluntarily, unpaid, and with marked pride, serve as crop reporters.

Since 1914 there has been an agricultural statistician serving each State and who in recent years has been a representative of the Bureau of Agricultural Economics where the reporting heads up in Washington. The Crop Reporting Board was established in 1905 to review State and to issue national reports and, in 1912, it began making preharvest forecasts. The present-day system of livestock reporting via unaddressed cards, which rural mail carriers leave at random along their routes, began in 1922.

Today about 500 reports are issued annually covering, among other things, acreages for 109 crops, condition of crops, pasture, production, and yields per acre for 136 crops, number of livestock and poultry on farms, and a dozen other matters of basic interest to farmers, extension workers, railroads, manufacturers, buyers of farm products, insurance agencies, banks, investors, credit agencies, exchanges, and various national and international groups.

The importance of this activity cannot be too greatly stressed. If you want details, get from Economic Information, Bureau of Agricultural Economics (phone 4407) its mimeographed (December 1946) document on the BAE Statistical Program. Reports regularly come in from 600,000 farmers, 83,000 local merchants, 11,000 ginners, 14,000 mills, elevators, and warehouses, 10,000 hatcheries, county tax assessors in 32 States, 28,000 dairy manufacturing and milk plants, 22,000 meat packers and slaughterers, 13,000 seed dealers and shippers—and about 100,000 personal interviews.

And another thing: During World War II farmers were so surfeited with the variety of wartime forms and questionnaires they had to fill out that many of them neglected their crop-reporting forms. Far fewer returns than normal came in, so far more questionnaires than usual had to be sent out. Many of the crop reporters are veterans, and too few new ones join up. *Do everything you can to stress the fundamental importance of this activity, the great public service patriotically performed by the voluntary crop reporters, and to induce recruits to join up.*

Brief but important

Do you like information packed in? **We should very much like to hear from readers everywhere on this question. Do you prefer a *USDA* packed with information in small type, as is the current issue—a method to which we resorted when printing-fund shortages browned us out? Do you think *USDA* should regularly contain a great many more Brief But Important items? Would you prefer them classified, or do you just like to amble along, as so many do, from subject to subject? Take down your hair, if any, and indict an epistle to the editor.**

Peak electric energy purchased: Rural Electrification Administration reports that the rural electric systems it financed purchased an all-time high of 2,367,780,748 kilowatt-hours of electric energy for distribution to consumers during the fiscal year ended June 30, 1946. Ask Press Service for No. 673 to get details; write in, or telephone Ext. 6114.

Beetle with the Fringe on Top: This is the title of an article in the May issue of Science Digest, which discusses the work done by our Bureau of Entomology and Plant Quarantine in and around Gulfport, Miss., as observed by the editor of *USDA* on a field trip in those dear dead days when field trips were possible. The Toronto Star republished.

Sugar Research Committee: This is yet another of the many advisory commodity committees which will help USDA in developing plans and projects under the Research and Marketing Act of 1946. Get No. 699 from Press Service for details; write in, or phone Ext. 6114. Other recent press releases covering appointments of other committees are as follows: Feed, tree nuts, 612; dry beans, peas, soybeans, flaxseed, 534; grain, peanuts, seeds, 630; vegetable, 646; poultry, 796.

Florida loused up: A very serious problem has developed in Florida as a result of entry of the African cattle louse, previously known to occur only in the vicinity of the Cameroons, West Africa, and first discovered only in 1915. USDA entomologists apprehended it in Florida in 1945—more recently in Texas—and it has spread to a number of counties in the former State. The louse glues its eggs to the tails of cattle; some call it the "tail louse." Sprays containing 1.5 percent (not less) of DDT in wettable powder form give good control, 1½ pints per animal, the whole animal being sprayed, not just the tail.

And then there were eight . . . er six, that is: War Food Orders have vanished rapidly in recent months. Passage of the First Decontrol and of the Sugar Control Extension Acts of 1947 left only eight: Nos. 63, 141, 7, 51, 10, 2, 71, and 78. See press release No. 700 for details; write Press Service, or phone Ext. 6114. P. S.—And ask about later actions which removed Nos. 51 and 71 from the picture also.

If you are interested in lilies, better get from Press Service its release No. 665 headed "New Lilies Surpass Ordinary Varieties in Size and Vigor." It tells of the work of Dr. S. L. Emsweller and others in Bureau of Plant Industry, Soils, and Agricultural Engineering in creating new varieties, and gives a lot of background too. Write in for it, or phone Ext. 6114.

Yes, they have many bananas: If you are interested in finding out what Gros Michel is, and how many varieties of bananas there are, read Bananas of the American Tropics, in Agriculture in the Americas for April–May 1947. The article is by Dale E. Farringer. And don't miss Mary S. Coiner's capsule discussion of the papaya on the inside back cover either.

Rich forest dividends: The national forests paid a 1946 dividend of $3,424,430 to 653 counties in the U.S., Alaska, and Puerto Rico, which include national-forest acreage. Total cash receipts from operation of the national forests amounted to $13,875,071 in fiscal year 1946. The law distributes a certain percentage of this sum to the States, to be apportioned among the counties. For details write or phone (6114) Press Service for 279.

Newton's apple: An item in Cornell Plantations, the little quarterly Bristow Adams edits, informs us that the apple which guided Sir Isaac Newton to the discovery of the basic law of gravity fell on his head, as he walked in his garden at Woolsthorpe in Lincolnshire, from a Flower of Kent tree. This bears an old-fashioned, almost extinct cooking apple with an October to January season, and its direct descendants are still known and cherished.

Praise where praise is due: The work of a county administrative officer under the Agricultural Conservation Program is right on the firing line, where complaints are more customary than praise. Therefore it is worth comment when one of these workers receives written commendation from an absentee landowner. In Kiowa County, Okla., Administrative Officer W. I. George recently received a letter of appreciation for assistance rendered the Agricultural Conservation Program toward constructing a dam for the storage of water for livestock, which was made possible through the services of the county office. It said in part: "If every Administrator was as cooperative and helpful as your office, he should be much more successful in interesting landowners of the absolute necessity for both proper drainage and soil conservation. I wish to thank you and your County Committee for your fair treatment and the desire evidenced to cooperate."

Momentum: If you want something done, ask a really busy person to do it—*really busy,* that is, not one who goes around all the time telling others how swamped he is—spends so much time at that he has very little left to do his work. The more you do, the more you can do; the smaller the chinks in between jobs, the easier you fill them with additional accomplishments. As you gradually overcome inertia, you work up a momentum that carries you through to ever higher production. Very busy people can always do a little more and can do it quickly.

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Noted through spectacles: C. R. Elder, well-known extension worker of Iowa State College, explains What Atomic Research Means to Farmers in the lead article of April Farm Journal, and Vernon Vine, former Farm Credit Administration information man, follows him immediately asking the reader to keep his eye on the West where big things are happening. To "atomic scientist" Elder and "westerner" Vine our congratulations.

More scientific public relations: C. F. Kettering, in addressing the American Association for the Advancement of Science recently, said: "Science is not fully advanced when the discoveries are made. There must be a follow-through from the conception of the idea to the experiment, to the device, to the product. It is often just as important for the businessman, the lawmaker, and the general public to know of discoveries in the field of science as it is for other scientists to know of the technical details. We must make the results of science available to all people of the world in facts and not in prophecy. A little more scientific public relations would forestall criticism and regulation. Science will be advanced furthest when its results and problems are better known and understood."

More chemotherapy: Joseph Naghski, Michael L. Copley, and James F. Couch, of the Eastern Regional Research Laboratory, have recently discovered that quercetin, a byproduct of the black-oak-bark tanning procedure, possesses rather remarkable antibiotic properties, on the acid side of neutrality, but shows negligible activity on the alkaline side. This activity is lost in the presence of scrum or iron. Quercetin is a yellow dye that appears when quercitron, the yellow coloring matter of black oak bark, is broken down with acid. It also occurs on similar treatment of rutin, Couch's special discovery for capillary fragility. In both instances the very rare sugar rhamnose (a methylpentose, with which ye editor flirted around years ago in the lab) also puts in its appearance!

Tom Campbell, of Extension Service, is featured in an article entitled "From Illiteracy to Fame" in the Spring issue of Opportunity; Louis Brackeen, of Alabama extension staff, wrote the piece.

United States-FAO Inter-Agency Committee: Membership in this committee consists of representatives from the Departments of Agriculture, State, Commerce, Labor, and Interior, Treasury Department, Bureau of the Budget, and Federal Security Agency. The Department of Agriculture members are Under Secretary Dodd (also chairman of the whole committee), Director Wheeler of Foreign Agricultural Relations (also vice chairman of the committee), W. A. Minor of the Secretary's Office, Agricultural Research Administrator Lambert, Chief Wells of the Bureau of Agricultural Economics, Administrator Gilmer of Production and Marketing Administration, and Chief Watts of Forest Service. Duncan Wall of FAR is secretary to the committee.

The Federal Government's publication and information policy, with special reference to USDA, is treated very objectively in Ovid A. Martin's article in Nation's Business for April. It bears the title, "Someone Asked Them To Do It," with an explanatory subtitle, "Cutting the Government's Costly Information Setup Isn't Easy. Every Job Meets Somebody's Needs."

The 1947 Garden Program Fact Sheet, a 4-page affair, was issued by the Department during March.

Textile fibers: The International Wool Study Group, which met in London March 31, issued a statement which you will find in press release No. 723, dated April 3 . . . On the same day the Commodity Exchange Commission, composed of the Secretaries of Agriculture and of Commerce, and the Attorney General, reduced the limit on speculative positions in cotton futures. The Commodity Exchange Authority will enforce this regulation. Details are in No. 716. Get these from Press Service; write, or phone Ext. 6114.

Cheese choosing: If you are interested in cheese, you have more varieties from which to choose than for some time in the past. The cheese experts have been busy learning new and better methods of cheese making, and the Bureau of Dairy Industry has taken a big part in the fundamental research. This is by way of getting you to read the article, When You Choose Cheese, in Consumers' Guide for April, which also contains pointers on sheets, information about herbs, and an understandable discussion of the Agricultural Research and Marketing Act of 1946. This is a monthly magazine of limited free distribution, 50 cents a year by subscription; address it in the Office of Information, USDA, Washington 25, D. C.

Award to colored home agent: The coveted Algernon Sydney Sullivan Award, given by Sweet Briar, notable Virginia women's college—usually to a member of its faculty—was this year conferred upon Rachel R. Carter, home-demonstration agent in Amherst County, Va. Miss Carter is one of only two nonfaculty-member recipients in the 14 years during which the award has been given. She has served a quarter of a century as home demonstration agent, and made outstanding contributions recently to the relief of starvation in Europe through her remarkably successful community-canning program.

Virus-Serum Act: A recent, *and rare*, conviction under the Federal Virus-Serum-Toxin Act, serves to turn our notice to this piece of legislation, administered by the Bureau of Animal Industry, which is aimed at the maintenance of high-quality veterinary biological products. In this instance the Aurora Serum Co., and Logan B. Huff, of Aurora, Ill., were convicted and fined because of an interstate shipment of a worthless hog-cholera serum, which had not been prepared under U.S. veterinary license, in compliance with regulations prescribed by the Secretary of Agriculture, and which was falsely labeled to indicate that it had been so prepared. Thus BAI protects livestock owners from worthless or undependable biological products intended for the treatment of diseased domestic animals.

That apple pie: Maybe you thought "she" couldn't make good apple pie because she wasn't a good cook, but maybe it wasn't that way at all. The Eastern Regional Research Laboratory reminds us that firm varieties of apples, which hold their shape in baking and make attractive pies, usually have less flavor than the softer, juicier apples, since firmness wins out over flavor, and McIntosh, Gravenstein, and other fine-flavored varieties tend not to appear in pies. Apple slices must be firm in texture and high in flavor to be ideal, and the laboratory scientists have found out that the use of small quantities of calcium chloride will impart firmness, just as it does to tomatoes used for canning. Then the slices remain firm when frozen, canned, or made into pie and baked. Get No. 727 from Press Service for details: phone Ext. 6114 or just write in. *The treatment cannot be used commercially until Food and Drug Administration regulations are amended.*

Walter B. Bigelow, Assistant Chief of Rural Electrification Administration's Engineering Division, was, on March 28, honored with election in the American Institute of Electrical Engineers to the rank of Fellow, the highest given by the institute, placing him among the 4 percent of the institute's more than 23,000 members who have received such recognition. Mr. Bigelow has been with REA since June 1936, and has been assistant chief of the division since January 1946. During this service and prior to his association with REA, he has made outstanding contributions to the advancement of rural electrification. He is a native of Kansas and a graduate of Kansas State College.

USDA Clubs: Improving Department Services to the Public Through USDA Clubs was the subject of the Training Council meeting, March 27, at which E. R. Draheim and Director Reid, of Personnel, and William A. Minor, Assistant to the Secretary, spoke. For a summary of what was said, or for information about forming or operating a USDA Club, address Dr. E. R. Draheim, Office of Personnel, Department of Agriculture, Washington 25, D. C.

Virgil R. Hassler has left Press Service, Office of Information, to join Agricultural Advertising and Research, Richmond, Va., where he is associated with John Babcock, son of H. E., New York farm leader. Mr. Hassler was with USDA before the war; during it he was the associate editor of All Hands, the Navy magazine.

C. M. Evans has received the 1946 Certificate of Merit awarded annually by the Dallas USDA Club for meritorious work. A veteran of a quarter century's service, he has served for the past 3 years as Southwest Area Representative, Dairy Branch, Production and Marketing Administration, but he operates a purebred poultry, livestock, and dairy farm in off hours. Active in USDA Club work, he was responsible for the successful sponsorship of the Sister Kenny Fund in all Dallas USDA agencies; he is prominent in the activities of the Dallas Agriculture Club, the Texas State Fair, and the Texas State Agricultural Council.

Joseph Cannon Bailey, author of the book, Seaman A. Knapp, Schoolmaster of American Agriculture, spoke twice in USDA recently. Knapp was officially associated with our extension work only 7 years, but the greater part of his previous 70 had been spent undergoing a long series of experiences in administering a great variety of undertakings which prepared him to spend the 7 most profitably. Always facing new situations, Knapp was fully prepared to have life begin again at 70.

Farm housing: The Housing and Household Equipment Division, of Bureau of Human Nutrition and Home Economics, is doing excellent work under the leadership of Leonore E. Sater, and prepares to do much more under provisions of the Research and Marketing Act of 1946. It is intensely interesting to visit the work at Beltsville and to find out how little we really know, and how much we have yet to find out, even regarding such subjects of the best cooking-utensil kits and farm kitchen cabinets, much less about designing and building houses adapted to human functioning.

Brief History of the Department: Condensed History of the USDA, *USDA* Document No. 4, has been revised recently. This formed the basis for a talk the editor of *USDA* gave before many USDA Clubs all over the U.S., and also is used frequently as an orientation talk for new employees in Washington. It has merely been simplified and brought up to date. If you want copies, *write* to T. Swann Harding, Office of Information, USDA, Washington 25, D. C.

Pigs can't sweat either: A while back we got involved in the nonsweating propensities of dairy cows. Hogs, having no sweat glands, might die at temperatures of 100° F. without moisture, though they can withstand 119°, if there is ample moisture on the floor. The Division of Farm Buildings and Rural Housing, Bureau of Plant Industry, Soils, and Agricultural Engineering, at Beltsville, Md., and the recently completed Animal Psychroenergetic Laboratory, at Columbia, Mo., have under way many basic research projects in their field. Animal metabolism and heat and moisture production under ordinary farm conditions will be measured, as will the requirements of poultry under various lighting conditions. These studies are new in establishing facts on the basis of actual barn or pen environment.

Housing Publications Program: Wallace Ashby, Chief of the Division of Farm Buildings and Rural Housing, Bureau of Plant Industry, Soils, and Agricultural Engineering, says 18 publications on housing have been planned and some are about ready for publication, but most are in various stages of preparation and probably will not be available for many months. All are intended for lay reading and are being written for easy understanding. M. P. 622, Your Farmhouse: Cut-Outs to Help in Planning (25 cents), and M. P. 619, Your Farmhouse: How to Plan Remodeling (15 cents), are in press at this writing; to get them, send the money direct to the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Others to come discuss planning the bathroom; insulation weatherproofing; planning kitchens and workrooms, bedrooms, living rooms, and new farmhouses; principles of good construction, heating, farm plumbing, and home-built kitchen cabinets; farmstead planning; landscaping; catalog of house plans; and financing the farm home. This covers the full series as to subject matter; look for actual names and how to get copies later when all bulletins became available. The series is being done cooperatively by PISAE, Bureau of Human Nutrition and Home Economics, and some other agencies.

The Race Is to the Ready: This is the title of a talk the Secretary gave in Oklahoma City, April 5. It is an excellent statement of the soil-conservation doctrine and of what the Department is doing, with the aid of Soil Conservation Service and the Agricultural Conservation Program, to build U.S. soil and halt further erosion. If you want to read it, ask Press Service for No. 674 by writing in or by phoning Ext. 6114.

Cooperative Fire-Prevention Program: Appoint yourself a committee of 10 to further this program. *Ninety percent of all forest fires are caused by the plain carelessness of thoughtless people.* In 1946 there were 575 forest, wood, and range fires daily, costing us 30 million dollars' worth of timber—not to mention much rich grazing land and thousands of animals—enough to build 215,000 five-room houses, or to make 90 million railroad ties, or 5 million tons of newsprint. This year forests must yield us 37 billion feet of lumber for homes and other uses, 20 million hewn railroad cross ties, 18 million cords of pulpwood for paper and plastics, and 6 million electric power, telegraph, and telephone poles. *Fight forest fires unceasingly and relentlessly.*

Dr. R. W. Trullinger, Chief of the Office of Experiment Stations, has been appointed as an Assistant Administrator of the Agricultural Research Administration. He will continue as Chief of OES, but the arrangement will bring this office into closer contact with the over-all planning of USDA's research. Dr. Trullinger will work closely with Administrator W. V. Lambert and Assistant Administrator Byron T. Shaw, of ARA.

Arbor Day is now 75 years old and was celebrated April 22—the originator's birthday—in Nebraska, where it originated. The father of Arbor Day was Julius Sterling Morton, a man of strong independent views who became Secretary of Agriculture under President Cleveland, March 7, 1893, and served 4 years less 2 days. President Buchanan had made him Secretary of Nebraska Territory in 1858. (If you want to know more about all who have headed Federal agricultural work since it started, *write* the editor of *USDA* and ask for Document No. 9.) Today tree planting is big business. Forest Service and State forestry agencies cooperate in producing and distributing hundreds of millions of seedlings for the purpose. Arbor Day is celebrated during April in most States, but some range from November in Hawaii to May in Maine. The Nebraska City celebration was especially notable this year.

Thomas E. (Tom) Howard is author of a new and important agricultural book published by the National Catholic Rural Life Conference, the outgrowth of many years of experience in the field of agricultural relations, both as an official of general-farm organizations and, since early 1933, as an employee of the AAA. For 10 years Mr. Howard worked out of Washington headquarters but, as transportation problems became more acute during the war, he transferred to Denver, Colo. The book is entitled "Agricultural Handbook for Rural Pastors and Laymen." It offers source material for all who want to see rural people anchored prosperously and happily to the land they till. The book is well indexed. Copies are in our Department libraries. More information may be procured from Mr. Howard, 963 Logan St., Denver, Colo.

Children's friend and confidant: We submit as evidence that everybody, even the children, feels that the Department of Agriculture is a traditional old friend in whom they should confide, this letter to the Department from Betty Ann out in a South Dakota village: "Dear Sirs—Is it fine out there? Grandpa said it was like spring. It isn't very nice out here. There is still snow on the ground. I have all my clothes for easter except my shoes. I am going to have everything red but my shoes. They are going to be black. Love. Betty Ann."

Plant growth: Donald F. Jones, of Connecticut Agricultural Experiment Station, has an interesting note on the growth of maize, in Science for April 11 (pp. 390–91). Maize grown under tobacco shade cloth is taller and has broader leaves than plants from the same lot of seed grown in full sunlight; temperature is the same, but humidity is higher and light intensity lower under the cloth. The same effect can be produced in the field by growing short-stalked varieties in the shade of tall-stalked. The temperature during the early stages of growth seriously affects later growth; heat-treated seedlings are shorter, less vigorous, and later flowering than untreated plants, after being set in the field; also there is pollen sterility in all treated lots.

Milton S. Eisenhower, well known to USDA and now President of Kansas State, has been elected to succeed Archibald MacLeish as a member of the executive council of the United Nations Educational, Scientific, and Cultural Organization; he has been head of the UNESCO National Commission in the U.S. A member of the U.S. delegation to the general conference of UNESCO in Paris, Eisenhower assumed his new office May 1.

The World Grows Round My Door, a new book by Dr. David Fairchild, famous plant explorer, may be procured from the Fairchild Tropical Gardens, Box 407, Coconut Grove, Fla.

National Farm Safety Week: The President, by Proclamation issued April 2, designated the week commencing July 20 as National Farm Safety Week, as a spearhead to a year-round farm safety program. The increasing complexity of modern farm operations continually creates additional accident hazards, and more fatal accidents occur in agriculture than in any other occupation. All rural people are urged to set aside a specific time during this week for family discussions of farm-accident prevention.

Bad Stuff in Writing: This is a single mimeographed sheet by Edwin H. Larson, of our Northeastern Forest Experiment Station. The discussion is continued by Editor Robert T. Hall, of the Division of Information and Education, Forest Service, under the title "Good Stuff and Bad Stuff in Writing." If we may coin a cliché, they are both good stuff. The editor of *USDA* has about 50 copies of each; first come, first served. Write, *please* do not telephone, T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Leonard A. Maynard, former director of the U.S. Regional Plant, Soil, and Nutrition Laboratory at Ithaca, N. Y., has a thought-provoking article in Science for April 18, entitled "A Chemist's View of Nutrition."

Conserving hay protein: You will find methods of reducing protein losses in hay so as to provide better silage for winter use of dairy cows in No. 838; procure from Press Service by phoning Ext. 6114, or writing in. It represents cooperative work by our Bureaus of Dairy Industry and of Plant Industry, Soils, and Agricultural Engineering.

Julian E. Rothery, a timber-management expert who entered Forest Service in July 1908, retired May 1. He was in private employment from 1913 to 1935, when he reentered FS, where he won international repute for his pioneering work in forest valuation, timber appraisal, and explorations and mapping surveys in remote areas. A native of Massachusetts and a Yale graduate, Rothery organized the forestry course at Utah Agricultural College, and was supervisor of the old Idaho National Forest when most of it was wilderness. This early experience provided him material for many magazine articles. He now makes his home at Cotuit, Cape Cod.

To Japan: The following left April 19 for 60-day assignments with the U.S. occupation forces and the Japanese Ministry of Agriculture and Forestry—Librarian Ralph Shaw, to assist in establishing a technical library for the Ministry; Associate Director of Information R. L. Webster, to assist in establishing for the Ministry an information service to distribute current technical data and programs to Japanese farmers; and Assistant Director Kenneth A. Butler, Labor Branch, Production and Marketing Administration, to assist the Ministry in the establishment of a budgetary control system.

Pasture renovation: If interested in the renovation of old established orchard grass and bluegrass sods of better-than-average production, through surface tillage, fertilization, and reseeding with good grass and legumes, phone (Ext. 6114) or write to Press Service asking for release No. 762.

Fungus stimulates flow of turpentine gum: Dr. George E. Hepting, of the Division of Forest Pathology, Bureau of Plant Industry, Soils, and Agricultural Engineering, announced recently that *Fusarium lateritium,* which he discovered on hard pines near Asheville, N. C., in 1944, seems to stimulate the flow of gum in turpentine pines. Fungus treatment of wounds in pine-tree trunks prolonged the flow of gum without damage to the trees. Pretty soon the turpentiners may have a cute little fungus helpmate.

Environment and food intake: Work reported in Science for April 11, from the Harvard Fatigue Laboratory, indicates that, regardless of environment—whether Arctic, subarctic, Temperate, or tropical—human beings choose just about the same percentage of protein in their diets; even in the Tropics the protein and fat intake naturally chosen is high by traditional criteria. Caloric intake, however, tends to average 4,400 in an Arctic environment, 3,850 in Temperate Zone, and 3,300 in the Tropics.

Visitors: C. C. Farrington returned from London in mid-April where he had been a USDA visitor at the conference there to draft a proposed international wheat agreement; he is Assistant Administrator of Production and Marketing Administration for the Commodity Credit Corporation. . . . O. T. Norris, of Sussex, England, vice chairman of the Young Farmers Organization of the U.K., recently visited the Department and told various groups and individuals about the young farmers' activities in England and Wales. The organization, patterned after our 4-H Clubs, was founded in U.K. about a quarter of a century ago. The organization is sponsored by the Ministries of Education and of Agriculture, and the young farmers work closely with the British County Agricultural Advisory Service.

New plant food facts: The scientists at Plant Industry Station, Beltsville, Md., recently entertained some 50 representatives of the fertilizer industry. At the time they disclosed findings about a slow-acting nitrogen fertilizer called Uraform—*so far produced on laboratory scale only*—a combination of urea and formaldehyde, which is superior to natural organics. It slowly parts with its nitrogen over a long growing period. It does not leach out of the soil easily. It seems especially adapted for use with corn, potatoes, and tobacco—crops which usually need additional fertilizer after planting. Its delayed action gives it good prospects for lawn and turf use. It can be used in mixed fertilizer and is unaffected by moisture absorption. *But it must wait awhile, as both its constituents are in short supply just now.* Uraform was a mere high light in an all-day conference which provided the visitors with much else of interest.

Tillage: The work of the Department's Tillage Machinery Laboratory at Auburn, Ala., is the subject of an illustrated article in the May issue of Federal Science Progress, Office of Technical Services, Department of Commerce. This is a unique laboratory, the only one of its kind in the world, and you should know more about it, probably, than you do. Federal Science Progress was discontinued with the June issue.

Abridged Chronology of Agriculture's Part in the War: Our *USDA* Document of this title has been carefully checked in Bureau of Agricultural Economics to remove errors and other bugs, and to get it in final shape for you and posterity. It will not reappear after copies in hand are exhausted. It is simply a list in chronological order of actions taken by, administrative changes made in, and activities of the USDA and War Food Administration in World War II, helpful to have as a sort of date-list reference to past events. *Write* (please do not phone) for copies, addressing editor of *USDA*, Office of Information, Department of Agriculture, Washington 25, D. C.

FHA's field men: Farmers Home Administration having abolished regional offices and officials, its 40 State directors will now be assisted in administrative work by 12 field men who will travel almost constantly between Washington and their assigned field territories. Ask FHA for information about who they are and the States constituting their assignments.

Reading matter of interest: If your agency, division, section, or laboratory at any time gets out mimeographed or otherwise processed material which you think would be of interest to USDA employees elsewhere, please, if possible, remember the editor of *USDA* with about 50 copies so that it can be offered to others through the columns of the house organ. If uncertain about how valuable the material might be, forward a copy to the editor for examination and he'll write you. Just address Editor of *USDA*, Office of Information, Department of Agriculture, Washington 25, D. C.

Delayed effects of rationing: The Medical Officer, a London periodical, discussed some delayed effects of food rationing in its March 29 issue. The worst wartime shortage was of first-class protein, and this scarcity still continues and engenders an "easily tired" feeling. School children of the United Kingdom are appreciably thinner and their general nutrition is not so good as before the war. Cod-liver oil and malt were issued in large quantities to prevent these conditions, but did not wholly do so. Minor defects, skin trouble, especially "spots," are more frequent now, and it is concluded that the long years of food rationing are now having a definite though long-delayed ill effect.

Bamboo: Bamboo flowers are decidedly uncommon. They turn up something like once a half century and are usually pale green and relatively inconspicuous. Bamboo seed also is a rare commodity, hence the big grass is normally propagated by dividing old clumps. When the Federal Experiment Station at Mayaguez, P. R., had a good set of bamboo seed in 1945 and 1946, many were used to test methods of storing and planting. Since fruiting and flowering occur only in plants from 20 to 80 years of age, few have had experience in handling the seed. Bamboo seeds resemble oats, do not seem to be long-lived, and, if they must be stored, storage should be dry and cool, but it is best to plant them quickly.

Arthur J. G. Illian, formerly Assistant Supervisor of the New York office of the Commodity Exchange Authority, died suddenly on March 26. Mr. Illian was a leader in the USDA Club of New York, and was active during the war and after in the Treasury's bond-selling campaigns. Mr. Illian joined CEA in 1941. Prior to that he was a partner in the futures commission firm of Winthrop, Mitchell, and Co., with offices in New York and Chicago. He loved and hugely enjoyed life and people, making him a charming companion and a delightful friend.

Dr. H. L. Haller, formerly Assistant Leader of the Division of Insecticide Investigations, Bureau of Entomology and Plant Quarantine, has been appointed assistant to the Chief of this Bureau. A world authority on organic chemistry, Dr. Haller has been with the Department since 1929. Born in Ohio, he is a graduate of the University of Cincinnati and of Columbia. The Hillebrand prize of the Washington Chemical Society for 1932 was awarded jointly to him and Dr. L. B. LaForge for outstanding research in the determination of the chemical structure of rotenone, one of the most important of the organic insecticides. His work in the chemistry of DDT and other insecticides, which were used by the armed forces during World War II, is well known. Dr. Haller will maintain contacts with work in the chemical field both inside and outside EPQ.

Long-Range Agricultural Policy: This is an important basic policy statement the Secretary made April 21 at the opening of hearings of the House Committee on Agriculture regarding long-range agricultural policies and programs. Write to Press Service, or phone Ext. 6114, for No. 851.

Leslie's puffer train: Last December 1, 7-year-old Leslie Freeman, of Kent, England, took his pencil in hand to wish the entire U.S. a Merry Christmas, writing in a big, vigorous, childish hand. In the course of his letter, addressed to the "Food Minister, New York, America," he confessed a desire for a "puffer train." His letter, in some inscrutable way, reached Chester A. Halnan, of Production and Marketing Administration's Field Service Branch, New York. The office took up a collection, purchased a fine electric train and tracks, and winged it to Leslie, somewhat behind a letter announcing its forthcoming arrival. And, in due time, came animated letters of thanks from Leslie and his mother, and a clipping from the London Evening Standard showing Leslie and his two brothers examining the train. A little outside official line of duty, this sort of thing goes far to cement stable and more pleasant international relations.

Elements of Soil Conservation: This is the title of a new book by the Nation's leading soil conservationist and Chief of Soil Conservation Service, Hugh Hammond Bennett. This textbook is one of the McGraw-Hill series in geography. The technical information is in language easy to understand. Questions for students and bibliographical references are included in each chapter. At the end of the book are a list of visual aids and an index. One chapter, A National Program of Soil Conservation, discusses the soil conservation work of SCS and other USDA agencies, and also of other Government and State agencies. Get this book, which is well worth reading and using, from the USDA Library or your bookstore.

Top PMA appointments: On April 24, the Secretary announced the appointments of Dave Davidson, former director of the Field Service Branch, as Assistant Administrator for Production, Production and Marketing Administration, and of Claudius B. Hodges, formerly deputy director of FSB, as his Deputy Assistant Administrator; also of Carl C. Farrington as Assistant Administrator in PMA for the Commodity Credit Corporation. They will work with Administrator Gilmer and Deputy Administrator Trigg in over-all integration and direction of PMA's programs and services. Messrs. Davidson and Farrington are well known to Washington USDA workers; Mr. Hodges is a native of Texas who served from 1942 to 1946 as food distribution administrator in the Texas State Office, former Office of Supply, and who assumed his position as deputy director of FSB in Washington during April 1946. A PMA Assistant Administrator for Marketing remains to be appointed. On April 28 the Secretary announced the appointment of M. J. Hudtloff as Comptroller for both CCC and PMA, with technical authority and responsibility over all their fiscal affairs in Washington and in the field.

The demand for this house organ exceeds the supply: Do you know of any office, laboratory, or agency which now gets too many copies of *USDA*, or which could dispense with some by sharing still further? If you do: Field workers write Mrs. Monica T. Crocker, Office of Personnel, Department of Agriculture, Washington 25, D. C., who attends to the distribution of *USDA;* Washington workers telephone her on Ext. 3185.

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USDA

FOR JUNE 23, 1947

Miraculous science

VISITS to the Plant Industry Station, at Beltsville, make the visitor regret what he has missed. Even an all-day visit enables him to snatch but paltry fragments of the richness that is there. It is fascinating to hear J. W. Mitchell discussing growth regulators, L. W. Kephart expatiating on weed killers, K. S. Quisenberry's stories of reconstructed small grains, and S. L. Emsweller's triumphs with ornamentals.

Lilies, snapdragons, and carnations know what they want out of life, and they get it. The scientists grow them entirely without soil—in pebbles, crushed stone, or mica—causing one U.S. Senator to wonder about his wisdom in paying so much for a farm, which was mainly soil! Nitrogen, phosphorus, and potash are fed in solution. The plants take up exactly what they want for the particular function they are undertaking, no more, no less. Self-feeding works as well with them as with hogs or dogs; they select their diets as well as do human beings.

Lilies, for instance, take large quantities of nitrogen until in full bloom, then abruptly change over to potash and go about the bulb-producing business. The number and earliness of certain kinds of flowers can be controlled perfectly by rationing the phosphorus. You can't fool the flowers on diet; they know what they want and absorb it. When the scientists want new forms or unusual crosses of flowers or small grains, they jostle the genes around with colchicine, the poisonous alkaloid from the autumn crocus. Forms fantastic and beautiful—variations in color, shape, petal formation, and time of blooming—result.

Then there are the weed killers, so-called plant hormones, really growth regulators, minutest quantities of which have astounding effects on some plants, making the leaves twist and curl and, if traced with radioactive elements, enabling the plant leaf to take its own picture, showing exactly how the "hormone" rushes down from where a bit was brushed on a leaf, to the root, then out into the plant entire. These chemicals kill weeds, help ripen bananas, prevent premature fruit drop of apples, enable sprigs of holly in water to put forth luxurious roots, set berries on female holly plants, make tomatoes quickly appear from unpollinated flowers, and prevent sprouting of stored potatoes and the development of apple scald.

There are more than a hundred of these chemicals, mostly with unpronounceable organic-chemical names; 2,4–D is the abbreviation of only one of them. Some kill broad-leaved and some only narrow-leaved plants. Some would kill weeds; some the grass. If beets were planted with grass, some would kill the beets, some the grass. New methods have been evolved to eradicate annual weeds like yellow mustard, using only 2 gallons of water to spray an acre, in lieu of the former 150; possibly a method will appear soon making it possible to cover an acre with a quart solution of 2,4–D!

The "hormones" are not poisonous; they simply upset the entire physiological process of plant growth. Already corn can be planted among weeds and grass, fertilizer applied, then, in 4 or 5 days, diesel oil used to kill the other growth and permit the corn to grow. In time there may be a machine which will plant corn, sock in fertilizer, and spray with weed killer all in one operation, and then permit the corn grower to go on vacation until his crop is ready for harvest.

Meanwhile disease-resistant small grains are being fashioned with rapid efficiency. While it may take six or seven generations to fix resistance, the first three or four generations may be grown in the greenhouse at a rate of two or three to a year. Specific resistance is skillfully built into strains and varieties which then give greater and more certain yields. If this keeps up, it will take fewer than the 2½ acres it is generally computed that civilized man requires to grow his food and fiber needs.

Finally the scientists talk well. They speak clearly, distinctly and in language easily understood by laymen; they talk with animation and real love of their work. Cheers!

Brief but important

Dean Johnson: Word reaches us of the appointment of Eldon L. Johnson, formerly of the USDA Graduate School, as dean of the University of Oregon's College of Liberal Arts and its Graduate School. Dr. Johnson left here in the fall of 1945 to head the Department of Political Science at the Eugene institution. He taught public administration in our Graduate School before becoming its director, and was organization and management analyst in the Office of Personnel from 1938 to 1940.

To Mexico: Dallas Burch, veteran editor of Bureau of Animal Industry, and of the Agricultural Research Administration, accompanied Dr. Maurice Shahan, of BAI, and his small staff to Mexico to help put out informational materials and prepare and file official reports to our Government on the battle against foot-and-mouth disease.

Fly holocaust: Insects find life more unbearable daily. Now Extension Director L. I. Jones, of Mississippi, announces a Statewide campaign to eradicate flies, using posters, leaflets, a clean-up and sanitation program—AND DDT! The campaigners are already off to a good start, and the flies are said to be making stable reservations in more benighted areas. If you see any Mississippi flies on the wing to far parts, you now know why. They will not be going to Iowa, however; it has a campaign of its own.

Farm labor: On April 28 the President approved H. R. 2102, an act (Public Law 40, 80th Cong.) which authorizes extension of the farm-labor supply program through December 31, 1947, but requires it to be liquidated 30 days thereafter. The Second Deficiency Appropriation Bill provides 5 million dollars to complete and liquidate the program. Responsibility for the farm labor supply was given to Extension Service January 25, 1943. An article entitled "It came like a bolt from the blue," in Extension Service Review for July, describes this program. Clara Bailey Ackerman is editor of the Review.

The Fermentation Division, Northern Regional Research Laboratory, simply can't seem to retain its top men. Now Dr. A. F. Langlykke, who succeeded Dr. R. G. Coghill as the Division's head when the latter resigned in 1945, has himself resigned to become head of microbiological development at Squibb Institute, New Brunswick, N. J. The loss of this outstanding fermentologist will be felt severely—and you know why they leave for better pastures without us telling you. *They're good.*

Departmental Loyalty Board: Secretary's Memorandum No. 1191, April 25, announced the appointment of a departmental loyalty board, pursuant to Executive Order 9835, March 21. Solicitor Hunter is chairman; the other members are Director Reid of Personnel, John P. McFarland, Assistant to the Secretary, Thomas J. Flavin, Judicial Officer, Office of the Secretary, and Mildred C. Benton, Chief, Division of Field Library Services, Library.

The Land and Wildlife, by Edward H. Graham (issued by Oxford University Press, New York 11), is the second book by a Soil Conservation Service employee recently mentioned herein, and the third by an author living in Falls Church, Va. Dr. Graham is a native of Pennsylvania and a graduate of the University of Pittsburgh. He joined USDA in 1937, and is now Chief of the Biology Division, SCS. His book, finely printed, illustrated, and provided with bibliography and index, is a guide to wildlife management by proper land use. The wildlife discussed has nothing to do with late hours and night clubs, but consists of fish, birds, and mammals, living wild. The book deals with land use practices that have proved most beneficial to these vertebrates. It is attractively and effectively written and offers the reader a liberal education in this field. It forms an ideal companion to the same author's Natural Principles of Land Use, published in 1943.

Plain writing: Improvement in writing seems to interest all USDA employees everywhere. Lucidity and vigor, combined in proper proportions, make for fine popular exposition. *But have something to say.* Too many promise to enable anyone to write or speak well, whether he or she has anything to say or not. The choice is not wholly between Maury Maverick's gobbledygook and Ernest Heminway's superdynamic machine-gun style. The staccato can become monotonous and wearisome; even a terse, short-sentence, monosyllabic style can fail, if lacking in vigor and glowing inner thought. It is, indeed, even better to use longer sentences and longer words, from time to time, to prevent monotony and promote vocabulary improvement and precise word usage. Lincoln, Mark Twain, Thackeray, and the Bible are better guides to clear exposition than James Joyce, Gertrude Stein, and William Faulkner.

Keep Your Oats Out of Trouble: H. C. Murphy and T. R. Stanton, of Plant Industry Station, Beltsville, jointly wrote the article of this title on new oat varieties, seed treatments, and so on, that maintain yields at profitably high level; it appeared in Successful Farming for March 1947, and the authors have reprints.

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Robert E. Conner has retired from Food and Drug Administration with 47 years 9 months of service. He began Government work as a clerk in the Post Office Department in 1898, was with Forest Service, at Ogden, Utah (his native State), from 1908 until 1916, and joined the old Bureau of Chemistry in 1917. He was FDA's purchasing agent.

Assistant on world problems: Col. R. L. Harrison, formerly assistant administrator for Fiscal and Inventory Control, Production and Marketing Administration, on May 1 became a Special Assistant to the Secretary to make necessary surveys and analyses of the food situation as needed.

More research advisory committees are still being appointed to study the need for and kind of projects to be undertaken under the Research and Marketing Act of 1946. Press release 941 tells about the appointment of the Fish Advisory Committee, release 1196, the Tobacco Advisory Committee. Get these from Press Service, by mail or phone Ext. 6114.

Research and Marketing Act for 1946: For comprehensive information regarding the origin and provisions of this legislation, and what has been done so far to implement it, write to Press Service (or phone Ext. 6114) for No. 911, an address entitled "Research in Marketing Agricultural Products," delivered in Seattle, Wash., May 2, by the Administrator of the Act, E. A. Meyer.

Automotive data: If interested in the budgetary and fiscal significance of automotive data for the fiscal year 1946—how many cars and trucks USDA operates or replaces, their age, mileage runs, and so on—procure from the Office of Budget and Finance its Circular 777, Supplement 2, April 15.

DDT is death to dog ticks: These are the ticks that carry Rocky Mountain spotted fever. Bureau of Entomology and Plant Quarantine makes specific recommendations for eradicating them on grass, weeds, or shrubs. Write Press Service (or phone Ext. 6114) and ask for No. 963 for details.

Kellogg on soil science in France: Charles E. Kellogg, head of USDA's Soil Survey, addressed the Mediterranean Soil Science Conference at Montpellier, France, May 1. This traveling conference then visited other points in southern France and South Africa.

Timber!!! The market value of the 588,526,000 board feet of timber cut on the national forests during the 3-month period ended March 31 was $2,846,505, an all-time high. The average price paid by bidders for this type of timber rose to the record peak of $4.84 per thousand board feet, the highest average price Forest Service ever received, and 12 percent above the corresponding quarter of 1946, while the volume cut advanced 38 percent over the same quarter last year—and this is normally a dull season! While demand for saw timber is unprecedented, sound forest management on a sustained-yield basis is gaining ground, and 29 percent of the forest-cutting practices on land owned by those holding 50,000 acres or more are now good. But small owners, who hold 76 percent of the privately owned commercial forests land in the U. S., lag badly.

Where is the front of the South Building? Think before you answer. Many perplexed couples try to meet one another at the middle entrance, Independence Avenue side; they in turn confound the guards on duty. Some say ruptured romances and divorces have started thus. The front of the South Building, in Washington, is on the Fourteenth Street side; go take a look at it and you'll see that architecturally that's the main entrance.

Erosion: For a fascinating account of how splash erosion injures bare soils, as described by W. D. Ellison, of Soil Conservation Service, and of the methods SCS uses to combat such erosion, ask Press Service by mail or phone (Ext. 6114) for No. 1027.

DDT: Our entomologists are finding out many new things about DDT in postwar investigations. DDT stimulates some plants, like potatoes, in addition to keeping destructive bugs in check; others, like the cantaloups and the cucurbits generally, it injures. It appears to aid some insects directly, and some indirectly by checking their parasites, or the parasites of their parasites, or even the parasites of their parasites' parasites, thus upsetting nature's balance of check and control. It appears to take a long time to disintegrate in soil, and its end effects on fish, birds, livestock, and man must all be considered. One basic rule: *Never use more DDT than will accomplish the purpose.*

Annual leave: During the war a lot of you had to work so hard that annual leave accumulated to your credit. Leave in excess of 14 days was not granted. *Things are different now.* The Department encourages planned annual-leave vacations to maintain employees' health and efficiency, and it is recommended that supervisors be liberal in granting requests for annual leave to attend conventions and meetings of veterans, technical and scientific societies, and fraternal and other organizations of interest to employees. Liquidate some of your accumulated annual leave, suggests the Office of Personnel.

Those Production Credit Associations: Over 397,000 farmers owned stock in 504 production credit associations on March 31. This was an increase of $3\frac{7}{10}$ percent in the first quarter of 1947. These farmers now own a total of $40,325,175 of stock in their associations, which have built up reserves of $39,850,796. During the first 3 months of the ear farmers obtained 110,000 loans totaling $203,000,000 from these associations, or 4 percent more loans and 16 percent more money than in the same period last year.

Honored for war work: Drs. Henry Stevens and E. Jack Coulson, of the Bureau of Agricultural and Industrial Chemistry, were presented with certificates of appreciation by Col. Rufus L. Holt, Commandant of the Army Medical Department's Research Graduate School, on May 7. Their specific contribution was in the field of allergic reactions to certain types of vaccines containing egg proteins. Presentation of the certificates occurred in the Secretary's office.

A review of our potato export program will be found in release No. 1014; phone Press Service, Ext. 6114, or write in to it. Nearly 10 million bushels of the 1946 crop were shipped abroad under this program.

Rural Electrification Administrator Wickard delivered another of his punchy and informative addresses on May 10; it was titled "Let America Grow." Get it from Press Service; phone Ext. 6114, or write in. Ask for No. 1009.

Fiber-measuring devices: Research Achievement Sheet 74 (A), available from Agricultural Research Administration (phone 3780), tells how various fiber-measuring devices developed by John I. Hardy and associates, of Bureau of Animal Industry, at a cost of about $5,000, prove worth $4,000,000 *annually* to the textile industry and others who use them. They are also invaluable in crime detection work. Six instruments are described in this sheet.

Waksman and Streptomycin is the title of a popular article on this subject which appears in American Journal of Pharmacy for March—which came out in May! The journal, the oldest pharmacy periodical in the Nation, also covers sciences supporting public health, and issues from the Philadelphia College of Pharmacy and Science.

Obesity and the genes: G. E. Dickerson, of our Regional Swine Breeding Laboratory at Ames, Iowa, and J. W. Gowen, of Iowa State College, report in Science for May 9 that the gene which produces yellow coat color in mice also reduces food requirements per unit of gain, and produces obesity by increasing the appetite and the food intake and reducing energy expenditures, especially for activity. Hereditary obesity results from more efficient food utilization. See details in Science.

REA's twelfth birthday: Employees of the Rural Electrification Administration cut a cake and a rug at their annual birthday party the night of May 8 in the Congressional Room of the Statler Hotel in Washington. The occasion marked the 12 years since REA was born, on May 11, 1935. A message of greeting from President Truman, brief talks by Administrator Claude R. Wickard and former Administrator John Carmody, the cutting of a huge cake, and dancing made up the evening's program. Since 1935, the 744,000 farms electrified have increased to approximately $3\frac{1}{8}$ million. But, as Administrator Wickard pointed out, the most difficult part of the job lies ahead, because approximately $2\frac{1}{2}$ million farms and at least 2 million rural schools, churches, small industries, and other nonfarm establishments still are in the kerosene-lamp age. Farmers across the Nation have become very much aware of the advantages that electricity brings to income, health, and comfort, and the demand for electric-system loan funds and construction materials far exceeds the availability.

Soil Conservation Districts: Herman Walker, Jr., now with the Department of State, and W. Robert Parks, of the Bureau of Agricultural Economics, give an informative exposition in the Journal of Politics for November 1946 (Vol. 8, No. 4), entitled "Soil Conservation Districts: Local Democracy in a National Program." Even though well equipped with footnotes, the account is readable.

National Association of Market Managers: Production and Marketing Administration acted as host, May 14–16, to the historic first annual meeting of the National Association of Market Managers. PMA Administrator Gilmer led off with a welcome, and William L. Wilson, Director of Florida State Farmers' Markets, presiding at the first session, presented the association purposes and objectives. Three days of panel discussions and occasional addresses, with special meetings of Retail and Farm Women's Market Groups, followed. The association is comprised of the directors of markets all over the U. S.

Fruit-bedecked and garnished frankfurters: The staff at our Western Regional Research Laboratory has devised a pectinate material from citrus peel and apple pomace which provides a soluble protective coating for sausage, as well as for other meat and food products. The method of making the casing is simple and involves use of the low-methoxyl pectin not long since developed by this same laboratory. When the coated product is boiled, the film dissolves; if the product is roasted the harmless coating is consumed with it. These pectinate films have many potential uses. For technical details get No. 1048 from Press Service; write in, or phone Ext. 6114.

John E. Hodge, of the Northern Regional Research Laboratory, has made major contributions to our knowledge about preparing complex starch derivatives, which may lead to the development of more durable lacquers, varnishes, synthetic fibers, and products similar to cellophane. This talented research chemist, a Negro, was educated at the University of Kansas.

Origin, Structure, and Functions of USDA: The USDA document of this title, still No. 1 in our series (now reduced from 10 to only 6), has recently been revised and brought up to date. Write (*please do not phone*) to T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C., for copies; *ask for as few as you can get along with as our supply is limited.* For your information, old Document No. 2, entitled "Constituent Agencies of the U. S. Department of Agriculture," has been discontinued. Send for new document list, if you wish.

Farmers buy food: Last year farmers spent about 2¾ billion dollars buying food. Nearly a fifth of their cash income is expended for that purpose; in the late twenties it was 17 percent. It is the prices farmers pay for things they buy that determine parity prices, so when food prices go up in stores, that helps to raise the parity prices for products the farmer has to sell.

The Small Community Looks Ahead, a book by Wayland J. Hayes, in collaboration with a former Forest Service employee, Anthony Netboy, gives case histories of revived small communities, especially in the South; it describes techniques for organizing communities and developing native leadership. Ask your book store or the Department Library.

World food supply: Little if any change in or improvement over 1946–47 is anticipated in the world food supply for 1947–48. For details see press release No. 1047; phone Ext. 6114 or write Press Service, Office of Information, Department of Agriculture, Washington 25, D. C.

Efficiency ratings: If interested in progressive views regarding efficiency ratings, find out what is being done in Farmers Home Administration, of which Virgil L. Couch is chief personnel officer.

Washington State item: Anna Jim Holman, formerly assistant extension editor in Arkansas, but for the past 3 years in Extension Information in Washington, D. C., joined Cal Anderson's Washington State information staff June 1, as associate extension editor. A native of Arkansas, A. J. took her master's degree at University of Oklahoma. And Cal himself has been given additional responsibilities as assistant to the Washington—State, that is—Director of Extension, handling organizational and public relations duties.

Farm fishponds: If interested in this subject get No. 1094 from Press Service, by phone (Ext. 6114) or by writing in, or procure the new Soil Conservation Service bulletin entitled "Farm Fishponds for Food and Good Land Use," FB 1983 (write Office of Information or pick it up in the Patio, Administration Building).

When Your Job Ends: This is the title of a somewhat melancholy but nevertheless informative statement issued by the Office of Personnel for the information of employees reached for reduction in force. It explains USDA's plan for releasing personnel and seeks to answer questions that will arise in the mind of those leaving. Apply for copies to your own personnel officers.

O. V. Wells scores some cogent points: The Chief of the Bureau of Agricultural Economics spoke recently before a group of visiting farm-journal editors. After introductory remarks about the present high prosperity of agriculture in general, in which he showed that, thus far, price supports for farm products have been called into play for only a few items, Wells asked this question: Why is there so much concern over our farm policy? His answer was: (1) A vague realization that we have a prevailing administered price system in business; (2) the fact that the union labor movement is here to stay, including collective bargaining and pressure for high wage levels; (3) the further fact that the whole world is really under a controlled and administered price system; (4) and, finally, that the wartime increase of about a third in farm output is here to stay. How, then, can the millions of farm operators, working separately, face such conditions and circumstances and retain a relatively profitable market? That is the $64 question for today.

Atoms down on the farm: By courtesy of W. W. Waymack, former editor of the Des Moines Register-Tribune, and now a member of the Atomic Energy Commission, *USDA* has for distribution 150 copies of a mimeographed speech entitled "Atomic Research Dividends for the Farmer," by Drs. Paul C. Aebersold and Nathan H. Woodruff, of the Commission's Isotopes Branch at Oak Ridge. If you would like something authentic about what atomic energy may be expected to do for farmers, *write* for a copy to T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

They were Brahmans after all: Experts in the Bureau of Dairy Industry tell us we need not have gotten such a red face on page 4, *USDA* for April 28–May 12. Humped cattle, *Bos indicus*, have long been called Brahmans or Zebu cattle in the U. S. See Webster—not Lyle, the dictionary; or get Farmers' Bulletin 1361, which describes some breeds or strains of these cattle. There are some 40 different breeds or strains of humped cattle, Red Sindhi being an East Indian dairy variety, and that the Indians may call them, but they remain Brahmans to us. Incident closed.

Growth regulators, those most versatile chemicals, have now come to the aid of tobacco growers. Tobacco farmers have to top the plants at the flowering stage, to get good leaves, and then pinch off suckers growing at the base of the leaves several times during the growing season. Dr. Robert A. Steinberg, USDA, has recently found in field tests that synthetic growth-regulating substances, in powder or liquid form, can replace this hand sucker pinching; applied once to the cut surface they retard sucker growth. Further trials must be made to be sure the tobacco quality remains unaltered.

Science in Farming: The Yearbook of Agriculture 1943–47 was published on May 31. USDA employees may borrow it from our Library or buy a copy for $2 from the Superintendent of Documents, Washington 25, D. C. The 1948 Yearbook, which will be devoted to grass, has been in the planning stage since early 1947. The book, according to present plans, will have three major sections. (A) National aspects: Grass in a permanent agriculture, grasslands in the United States, grass and soil, grass in the conservation of water and soil, grass as feed for stock, management and improvement of ranges, culture and management of grass on farms, finding and improving grasses, hazards of growing grass and legumes, specialized uses of grass, grass in the national economy. (B) Specific information on growing grass in each of the eight regions of the United States. (C) Taxonomy of grass.

The Extension Editor Advisory Committee met with Extension and other agency information personnel in Washington, May 19–23. The seven chosen ones this year were: C. R. Elder, Iowa, chairman; Glenn C. Rutledge, Arkansas, secretary; T. W. Gildersleeve, North Dakota; George Round, Nebraska; Louis Franke, Texas; Calvert Anderson, Washington; Tony Hofford, Rhode Island. In addition to profound deliberations and animated discussions, there was the usual boat trip down the Potomac, and luncheon with the Secretary speaking informally. Theme of the conference: A Balanced Extension Information Program. Copies of the committee's report are available from Extension Information (phone 6283).

Jack's retirement application approved after 13 years! Thirteen years ago—May 20, 1934, to be exact—John A. (Jack) Ferrall filed an application for retirement, under the Economy Act. He was talked out of it. Every time since then when he has picked up his hat to go, he has been talked out of it. But this time it seems final—effective June 30, 1947. Jack came to the Bureau of Plant Industry in 1906 and for years served as head clerk for the Office of Crop Physiology directed by Dr. Walter T. Swingle (retired). When that office was absorbed by the Division of Fruit and Vegetable Crops and Diseases a dozen years ago, Jack carried on in charge of publication records and distribution and as editor of the division's semimonthly News Letter. He will make his home near Hollywood, Calif., and expects to do a little free-lance writing while lolling in the hammock under the apricot trees. You know him as *USDA*'s outstanding contributor.

Increasing Value of Agricultural Waste Products is the title of an illuminating address delivered by E. C. Lathrop, head of the Agricultural Residues Division of the Northern Regional Research Laboratory, at Peoria, Ill., before the Third Industrial Waste Conference at Purdue, May 22. Only 2 million of the 200 million tons of straws, stalks, cobs, shells, hulls, and other agricultural residues produced annually are now used industrially. If you want to know more about the potential usage of such now wasted material, you can procure mimeographed copies of this address by writing to the northern lab.

List of top officials of the USDA: This list, formerly *USDA* Document No. 5, may now be procured from the office of John Thurston, secretary of the Administrative Council, Department of Agriculture, Washington 25, D. C. Send requests thus addressed by mail, or phone Ext. 3321.

Life Insurance for Farm Families is the name of the Department's Miscellaneous Publication No. 621, dated February 1947. Ralph R. Botts, of Bureau of Agricultural Economics, prepared it, with the limited assistance of two outside insurance actuaries. The subject is covered very completely and much of the information would be useful also to nonfarm people.

Alice Cary Atwood, botanical bibliographer of the USDA Library staff for many years, died May 20 at her home in Washington. She retired in 1942 at the end of 38 years of service, most of which were devoted to building up a subject catalog of botany and plant pathology known and used by plant scientists all over the world. (See Chronica Botanica, 7, 1943.)

Beef and DDT: According to USDA Entomologist Lyman S. Henderson, DDT sprays for horn-fly eradication, by enabling the cattle to gain weight more rapidly, pay out at a rate of 100 extra pounds of beef per dime's worth of DDT used.

Foot-and-mouth disease in Mexico: Press releases are issued every now and then on the status of the Mexican-American battle against foot-and-mouth disease. If interested, contact Press Service in writing, or phone Ext. 6114, and ask for releases on the subject. Following are the most recent ones: No. 1060, No. 1133. Supplement No. 4 to Summary of Developments in the Mexican Outbreak of Foot-and-Mouth Disease was issued May 17; write or phone Sally Miller (Ext. 3780), Agricultural Research Administration.

Newcastle disease: Ten thousand chickens were recently vaccinated against Newcastle disease on one District of Columbia farm! The disease has now been found in 39 States. Losses of 15 to 20 percent occur in young birds of infected flocks, and there is a marked decrease in egg production by layers. For more information write Ralph Erskine in Bureau of Animal Industry.

Value of State-Federal research: A 5-page press release appeared May 22, devoted to the value of research performed by Federal-State cooperation in the State agricultural experiment stations; it digests the annual report of R. W. Trullinger, Chief of the Office of Experiment Stations. This research was financed by $7,206,208 in Federal grants and $20,186,854 of State funds during the fiscal year. The value of the results of many single projects runs into millions saved to farmers. We strongly recommend that you procure release No. 1109 from Press Service; write from the field; phone Ext. 6114 in Washington. It will be well worth your while to know more about the nature and value of this cooperative research carried on in every State in the Nation. The variety of the projects and their sound monetary value will astound you.

Colored 4-H: Plans are being made for the first national encampment of colored 4-H boys and girls, to be held in 1948. Director Wilson says Extension Service will cooperate with the State services on the same basis as it does for holding the national camp in Washington each year. Details later.

World Soil and Fertilizer Resources in Relation to Food Needs: Those interested in this address by Robert M. Salter, Chief of the Bureau of Plant Industry, Soils, and Agricultural Engineering—mentioned in *USDA* for March 31–April 14—can now find it leading off the May 23 issue of Science.

New England conserves soil: Eight years ago Vermont led the way here by enacting its enabling law for soil conservation districts; now 56 districts cover 33 million acres of New England, embracing 130,000 farms and all of rural New Hampshire and Rhode Island. Vermont and Connecticut lack one county each of being covered entirely; Maine, the second of these States to enact a districts law, has only three counties and the swamp area of Aroostook outside. Massachusetts is all within districts except coastal Barnstable County, the offshore islands of Dukes and Nantucket, and Suffolk County, which is mostly occupied by Boston.

International Cereals Conference: On May 22 the Secretary addressed to Dr. D. A. FitzGerald, Secretary-General of the International Emergency Food Council, a letter suggesting that an International Cereals Conference be held to devise improved management of indigenously produced food supplies. The IEFC almost immediately approved this suggestion. The conference will be held in Europe sometime this summer. The European, in fact the world, food situation remains most critical; violence and rioting can be prevented only if maximum food supplies are sent abroad.

Louis Bean is back: For many years in the Bureau of Agricultural Economics, Bean has returned as an administrative assistant on the staff of the Secretary. He has been in the Bureau of the Budget during the interim.

Guayule latex: Edwin P. Jones, of the Guayule Emergency Rubber Project, Salinas, Calif., reported recently from the Bureau of Agricultural and Industrial Chemistry on the recovery of rubber latex from guayule shrubs. A maximum of about 70 percent of the rubber present in 3- to 4-year-old foliate shrubs was recovered as a latex containing 35–50 percent solids. Continuous processing with better adapted equipment should bring that 70 up to 80 percent. The rubber was of excellent quality and compared well with ordinary hevea rubber, though it is slightly inferior for general but superior for certain special uses like sponge rubber, and certain dipped goods requiring high tensile strength and elongation. The process is so far perfected as greatly to facilitate any future investigations of making latex from guayule.

The Place of Economic Research in the Marketing Field: This is the title of an article by Bennett S. White, Jr., acting in charge of the Marketing and Transportation Research Division of Bureau of Agricultural Economics. It appeared in Marketing and Transportation Situation for April–May, procurable from BAE (phone 4407). It tells about the kind of research projects that can be undertaken in this field under the Research and Marketing Service Act of 1946. It is especially informative in showing how the various fields of research, for which the legislation makes provision, tie together; it should be read by all who are interested in the kinds of research to be carried on.

Did you know? That mosquitoes find you more edible when you dress in black, but quite unpalatable when you dress in white or yellow? Blue and red also attract the pests, and, in a half-minute test run, 1,499 mosquitoes lit on a black shirt worn by one man as compared with only 520 on the white shirt of another. . . . Or that 18 companies now manufacture fruit essences by the method devised at our Eastern Regional Research Laboratory, 5 of them making the products for sale and 3 of them producing apple essence? One concern has capacity to produce 35,000 gallons of essence a year. That process proved practical in a big way. . . . That the annual board bill of the corn borer is now $37,700,000 and 84 percent of it is paid in Iowa, Illinois, Indiana, and Pennsylvania?

The Ruffed Grouse, a book by Frank C. Edminster, a regional biologist of Soil Conservation Service at Upper Darby, Pa., has been published by Macmillan Co. of New York City. If interested, contact the publisher, your local bookstore, or the Library.

Radioactive atoms are tagged: Radioactive phosphorus has a half life of 14 days—can be caught by the Geiger counter as present when there in only one-billionth part. Such tagged atoms enable our scientists not only to tell where phosphorus goes in a plant, but how much phosphorus the plant gets from the fertilizer, how much from the soil. Use a bit of radioactive phosphorus in the fertilizer; analyze the plant for total phosphorus; estimate the tagged phosphorus by means of the Geiger counter; that's the current research process. Thus the effects of soils, fertilizer placements, and plant-growth stages can be accurately checked. Since plant use of phosphorus is only 20 percent efficient, improvement here would mean much to farmers. Unfortunately some radioactive isotopes have a very brief half life; other elements do not become radioactive; but phosphorus can teach us a lot anyway.

What? No lice? Possibility of a louse-free world looms, according to E. F. Knipling, of Bureau of Entomology and Plant Quarantine. However bad off human beings may have been, the lice have had a tough time of it too during the past 5 years, and future prospects are even dimmer. The louse has lived in close friendly association with human beings—that is, some human beings—since the dawn of history. But DDT makes louse eradication possible, despite the perfect adjustment the louse has worked out with man and human blood. Other substances with which EPQ has worked, two related to DDT, as well as methyl bromide, can toll the knell of the departing louse. If some louse strain hardily resists DDT, newly developed materials like 3956 and chlordane may accomplish the purpose anyway.

Psocid exonerated: If you are acquainted with psocids, pronounced just as if the little "p" in front wasn't there, or have viewed these mites, commonly called "book lice," with alarm, take heart. The entomologists, after watching the little creatures for two decades, say that they neither bite human beings nor damage paper and fabrics—the latter usually being done by silverfish. For years psocids have been blamed for the destructive antisocial acts of other insects. They thrive in damp, dark, poorly ventilated rooms, or in new houses not entirely dry. They feed on microscopic molds on damp furniture, wall paper, straw mattings, and so on. For details see USDA Leaflet No. 189, Psocids, Annoying House Pests.

War on words: Civil Service Commissioner Frances Perkins has declared open warfare on such words as "deemphasize," "disenrollee," and "amputee," and such phrases as "operate at this level," and related horrors. Maury Maverick once called such language "gobbledygook." H. L. Mencken, remarking that the wash bowls in the British Museum bore the sign, "These basins are for casual ablutions," says that Government employees are anything but masters of prose, and he calls their writing pretentious, shabby, bombastic, and ponderous. Are they alone in this weakness? Did someone murmur "lawyers"? Anyhow about the worker who turned up with a note from the doctor saying he had suffered "a contusion of the periorbital integument, subcutaneous hemorrhage, ecchymosis of the conjunctiva and the periorbital cutieular tissues, discoloration, tumefaction, and abrasion of the supramalar epidermis." Well, he had a black eye.

Rugged bugs: Scientists at our Western Regional Research Laboratory have discovered that bugs in juice from oranges afflicted not too severely with soft rot survive freezing and storage at 0° F. for 8 months! Even then the frozen juice of the "soft rot" oranges contains far more bacteria than fresh frozen orange juice from sound fruit; as extracted, its microbe population is 2,500 greater than that of juice from sound fruit. Moral: The juice of sound fruit only must be used in preparing frozen orange juice.

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Type size, content

COMMENTS flutter in, replying to our request for reader opinions of *USDA* in the May 26–June 9 issue. Most readers like the house organ as it is. A considerable and very intelligent minority would like it in larger type, or wish it could be made prettier. We admit out of hand that we have sacrificed pulchritude and larger type size to cram more information into *USDA*.

Properly to cover the activities of the Department, using the type size in which these words are set for everything—BBI items and all—we should have to have an 8-page issue fortnightly or a 4-pager weekly. This our budget does not permit. We therefore face an incessant struggle between using small type and no reader-enticement devices in order to get in just as much information as possible, or using larger type, ornamental heads and subheads, illustrations, departments, and other space-taking contrivances, and omitting much important information.

So when you come right down to it we are asking you: Do you vote for a prettier house organ in bigger type or an uncomely *USDA* in smaller type? For the time we shall compromise by going back to this size type for the first and second pages of articles in each issue (as soon as we run out of some already set in smaller type), and running the last two pages of each issue in unassorted, uncatalogued Brief but Important items in the small (6½ on 7) type. If howls of rage and disapproval result, we shall try to please the more vociferous group, as a democracy always does. But women, their detractors say, are never both beautiful and wise. The choice between beauty and wisdom faces *USDA* unceasingly, and a rigid budget is always present.

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Our land

THE LAND area of the U.S.—important rivers and lakes not included—is about 1,905 million, or nearly 2 billion acres, according to the 1945 census. Of this, 13 million acres are in cities and towns; 87 are occupied by parks, railroads, highways, military lands, and so on; 94 comprise deserts, rock, swamps, and other rural land that is not farmed; and forests occupy about 260 million acres, which are not grazed. There are 345 million acres of forest pasture, 706 of grassland, and 403 million are capable of cultivation. Some of the last is idle or in fallow.

In short, crops, pasture, and timber occupy about 1,700 million acres, or 90 percent of the Nation's land area, and the other 10 percent is agriculturally of slight use. Only about a fifth of our land area is used for actual crop production and only about 350 million acres have been planted in or used for growing crops during recent years. Hence our current enormous crop production comes from less than a fifth of our land area, while a third of our cropland is located in the Great Plains, a fifth in the Corn Belt, and a sixth each in the South, the West, and the Northeast and Lake States.

The largest single use of the land is for pasture and grazing—a billion acres. Production of livestock and livestock products thus takes over half of the land area, cropland for growing feed *excluded*. More land is now in farms than ever before, 1.1 billion acres.

About 75 percent of the Nation's land is privately owned, 20 percent is owned by the Federal Government, and 5 percent by State and local Governments. The Federal land is largely forest, grazing land, and desert; much of it is in national parks, game refuges, Indian reservations, and military establishments, but much is used by farmers and ranchers. Parks, forests, and grazing lands make up most of the holdings of State and local governments.

Farm forestry forty

TIMBER can be an annual farm crop, even as are corn, potatoes, or cotton. It has a place on many farms and can yield a high return per hour of labor expended. The Crossett (Ark.) branch of the Southern Forest Experiment Station has proved that since 1937, on 40 acres of reasonably well-stocked, natural pine-hardwood second growth selected for study. It stands on typical upland soil of relatively low productivity for row crops.

It was planned to harvest timber annually, making the volume cut equal the volume grown—i. e. sustained yield, but taking the cut from the poorer trees to improve quality of the stand and the value of the future production. The plan worked. Enough lumber has been removed to build six 5-room houses, and sufficient pulpwood to print 65 million copies of *USDA!*—and in addition, sufficient firewood to heat an average home for 27 years, plus 288 fence posts.

The value of these products as delivered to mill or market works out at $133 per acre, for 9 years of operation, or $14.82 per acre per year. Figured on the basis of the time it took to harvest and deliver the products, the average is $1.10–$1.64 per hour, and the "Farm Forty" has on it more timber of better quality today than when the project began.

Timber production is not a panacea of farm ills, but proper timber crop management can improve the status of most landowners, and their lot too, i. e. the farm woodlot. The Farm Forty has aroused widespread interest throughout the U.S. Foresters and timberland owners from nearly every State east of the Great Plains have come to see the demonstration, not to mention many students and foresters from foreign lands. The best flattery of all is imitation of the Crossett Farm Foresty Forty elsewhere in the South, Midwest, and East.

(Basic facts sent in by R. R. Reynolds, Southern Forest Experiment Station, headquarters at New Orleans.)

Delayed mail

THOUSANDS of pieces of mail are delayed yearly because of incomplete or incorrect addresses. Mail should always have (1) *name of addressee*, and (2) *name of agency*. If considered necessary, the division, section, or room number may be added, but *in any event* numbers 1 and 2 should always appear on the envelope.

All mail received in the Department Post Office in Washington with incomplete addresses has to be checked with the telephone directory, to learn the right agency. Delays involved in this process depend on the volume of correctly addressed mail received for handling. Mail correctly addressed is handled first, and second, mail incompletely or incorrectly addressed.

If all employees would correctly address material sent by mail, what a happy day that would be for mail clerks as well as others! (This would include the editors of *USDA*, who get mail from the field with no bureau, no city or town, and mail from employees in Washington without the name of the agency.)

Speaking writing

YOU'VE no doubt heard of the half-illiterate who said he could read reading writing but he couldn't read writing writing. This is about speaking writing.

Every now and then a fellow named Mark Adams came over from Austin to Texas A. & M. and helped Extension Editor Louis Franke and others untangle their publications. One day Louis loaned him Dr. Rudolf Flesch's The Art of Plain Talk and asked him to read it. Mark did and returned it with a note saying he could write a more useful book, in fact had done so, for here it was. Said Mark: "In my book I tell you to do what Dr. Flesch tells you to do. Only Dr. F. tells you how to do it the hard way and I tell you how to do it the easy way. He takes 22 chapters and an appendix to tell you. I take only 2 chapters and a summary."

The Mark Adams' "book" covers 2 mimeographed sheets, single space. The first chapter tells you How To Be a Good Writer. The second tells you How To Be an Extra-Good Writer. Then there is the summary which winds up—"If you don't feel comfortable

sitting around listening to a bunch of farmers you will never be a really good writer for farmers, no matter what rules you use. You've got no business trying to work with farmers in the first place."

Mark Adams says, listen to people talk, not to *what* they say, but to *how* they say it, then write like that. Be interested in the things which interest them, then you become extra good. Texas A. & M. English profs did not relish the Adams contempt for grammar and rhetoric. They also said you couldn't write as farmers talk because farmers are often inarticulate—but they all wanted copies of Adams' "book." Do you? If you do, write Louis Franke, Extension Editor, A. & M. College, College Station, Tex., and ask him for a copy of How To Write So People Will Know What You're Trying to Say, dedicated to the twin theses that it's easier to talk than to write, so you better write by ear.

The rot and the spores

BROWN ROT causes a condition known as mummy peaches. It attacks the fruits; they shrivel; some cling, some drop to the ground. By spring a half-buried mummy peach may develop some five or six cup-shaped fungus fruiting bodies filled with spores, ready to discharge hordes of them into the air about the time the peach blossoms appear.

Did we say "hordes"? We did, and with warrant. For only three of the aforesaid cups—known in technical circles as apothecia—can supply sufficient spores to allow 50 for each square inch of an acre orchard!

Such is the mclancholy calculation of John C. Dunegan, Bureau of Plant Industry, Soils, and Agricultural Engineering. That means that each cup can produce 150 million spores, more or less, and six of them might readily toss off a billion. Infections started by these early spring spores develop a different type of summer spore; these, in turn, spread the infection.

No wonder orchard owners are urged to apply protective sprays to prevent development of the spores which lodge in blossoms. Another obvious step is removal of just as many mummics as possible from the trees and the soil beneath them. These facts of life among the leading brown-rot circles give you some idea of the problems faced by those who seek to cope with diseases of plants and trees.

All-American vegetables

THE VEGETABLE industry of the United States is not content to leave to baseball and football enthusiasts the selection of all-American teams. A committee of the seed trade, known as All-America Selections, conducts a comparison under actual field conditions of promising new varieties, hybrid or otherwise. From the e the most outstanding are selected for All-America honors and awarded medals.

And if there's any doubt in your mind as to whether the Department's specialists on vegetable growing "know beans," it should be wiped out by the announcement that at least two of their creations have won All-America honors in recent years. These are the Early Market, and the Fordhook No. 242, bush lima beans. They are outstanding results from a program of inbreeding and selection conducted by Roy Magruder and R. E. Wester, of the Division of Fruit and Vegetable Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering, over a period of years. In close cooperation with the State agricultural experiment stations, Federal specialists are now working on some new bush beans that have possibilities of developing into additional All-America Selections.

They have, too, a new snap bean, the Logan, that will bear looking into—and sampling. It is a hardy and prolific cross of the U. S. No. 5 Refugee and Stringless Black Valentine. It is a disease-resistant triple header. That is, it is outstanding for three distinct uses—as a market garden bean, in the home garden, and for use by the processing industries. It is one of the many valuable contributions being made by our Southeastern Regional Vegetable Breeding Laboratory, Charleston, S .C., where work is under way in cooperation with 13 Southeastern States.—JOHN A. FERRALL, PISAE, *retired*.

Superior accomplishments

THE Department recently awarded superior accomplishment pay increases to the following 10 employees:

Farmers Home Administration: Edward B. Angle, for constantly enthusiastic and successful effort to improve practices and procedures; Genevieve A. Martin, for assuming responsibiliities over and above those expected of her and for outstanding contribution to weekly FHA broadcasts; William E. Newell, for suggesting a revision of the Nebraska Crop and Chattel Mortgage form; Loula S. Park, for assuming county office duties far beyond her normal responsibilities; Theda N. Scott, for preparing, editing, and presenting for 4 years weekly FHA broadcasts of unusual quality and continuity; Faye A. Wall, for serving as nurse and maintaining a first aid room in addition to her assigned duties; Harold L. Winfield, for exceptionally effective public relations work carried on in addition to usual FHA program activities.

Forest Service: Mary W. Hutchins, for assuming duties of unusual difficulty in addition to maintaining a work record of exceptional quality; Jasper E. King, for participating in the design of a stereoscopic plotter and developing a method for making topographic maps from aerial photographs at low cost.

Soil Conservation Service: Clay C. Barnett, for originating the idea of, and establishing, a complete soil conservation plan on a farm in *one* day as a demonstration.

Reading your speech

CONTRARY to general opinion, it is not fatal to read a speech. What is fatal is to die on your feet the minute you begin to read. But a written speech can be much better prepared, much better balanced, and much more satisfactory than diffuse extemporaneous remarks, *provided it is read well*. How accomplish that? Here are some rules, in part derived from 14 of them propounded recently by Edward J. Hegarty of Western Electric.

Neither apologize for nor seek to justify the fact that you will read the speech. Read slowly, not as if you had a train to catch, and *above all* avoid the deadly flat monotone 99 people out of a hundred automatically adopt the minute they begin to read. Read loudly, putting in more volume than you think you really need. That will help make readers understand and also persuade them that you are alive.

Don't anchor your hands but use them to gesture now and then, and pause every once in a while, if only to look up, smile, take a drink of water (or whatever is handy), or to repeat what you just said in different words, preferably walking off from the lectern to do so—and to prove you are not afraid of falling down without it. Make a wise crack if one occurs to you, or worm in some other relief device.

When you ask a question, propound it as if you expected an answer, though if someone did answer you would probably take off. Use exhibits or slides if apposite; think of your manuscript as talk; talk it conversationally, otherwise you will sound stiff and stilted. *A read speech needs life.* Otherwise it suffers from rigor mortis. If you can't do anything else, stop somewhere and say "Who writes this stuff anyway?" or "It says here," but read as if you were alive and not a dummy and all will be well.

Brief but important

Foot-and-mouth disease was the main subject of The Extensioner, Louis Franke, College Station, Tex., editor, for April. Texas is, of course, right on the main potential invasion front should the disease enter the U. S. from Mexico. This issue of The Extensioner affords a fine compendium of information on the history and outbreaks of, economic losses caused by, and control of, foot-and-mouth disease. Write Louis; maybe he can spare you a copy if you are interested. . . Meanwhile, in Mexico, U. S. and Mexican authorities are combating the outbreak of foot-and-mouth there. Gasoline-powered shovels, bulldozers, jeeps, trucks, and other automotive equipment and heavy machinery recently arrived from the U. S. Most of it was Army surplus. Details are in release 1201; write, or phone Ext. 6114, Press Service.

New drought bulletin: Soil Conservation Service has issued a new Farmers' Bulletin (No. 1982), entitled "When Drought Returns to the Great Plains." Despite the fact that this region is periodically subject to inevitable droughts, farmers can weather them if they start conservation in time during the good years. The bulletin gives soil and moisture conservation methods which have proved effective. It emphasizes that we do not need to have another Dust Bowl. Several hundred soil conservation districts in the Great Plains help farmers and ranchers meet the drought menace. This FB is available in the Patio, or by mail, from the Office of Information.

The job yet to be done in rural electrification is well outlined in a letter dated May 22 that Rural Electrification Administrator Wickard addressed to Rep. Jamie L. Whitten. There were still 2½ million farm families living without electric light and power at the beginning of 1947, and more than 2 million rural schools, crossroads business places, and dwellings not on farms did not have highline power. For more detail get copies of the letter from REA information; address Allyn A. Walters or phone Ext. 3564.

Rutin in tomatoes: William L. Porter and Joseph Naghski, of USDA, recently reported on the isolation and identification of rutin, the drug that prevents capillary fragility, in Red Currant tomato plants. The Red Currant has quite small fruit and is of considerable interest to plant breeders because of its resistance to the fungus causing fusarium wilt. The Red Currant also contains the antibiotic, tomatin, which prevents development of wilt, though not in direct proportion to the quantity present in the plant. Rutin does nothing to prevent fusarium wilt, nor does it influence the tomatin assay. Rutin and tomatin are not identical, either, although they tend to appear together in the leaves and stems of these tomatoes, and the Bureau of Agricultural and Industrial Chemistry workers mentioned above found some evidence to show that tomatin, like rutin, may contain some carbohydrate in its molecule. Though rutin has been isolated from nearly 40 plant varieties, this is the second time only from tomatoes.

Watersheds and National Forests is the title of an address Chief Lyle F. Watts, of Forest Service, delivered before the Twelfth North American Wildlife Conference, in San Antonio last February. But it is so packed with information about watersheds, wildlife, timber, and range management, and other matters relating to sound forest management that we recommend you procure copies from FS and read them. Address FS Division of Information and Education, or phone Ext. 3760 or 5920.

Calling all biologists: You will be much interested in the first three articles in Science for May 30. Robert F. Griggs, Chairman of Biology and Agriculture of the National Research Council, discusses the question, Shall Biologists Set Up a National Institute? Ralph E. Cleland, of Indiana University, shows the possible advantages of cooperation between various learned societies in the matter of publication. H. B. Tukey, who heads the Department of Horticulture at Michigan State, takes as his title, "Research in Fundamental Biology and in Agriculture," and has not a little to say about the Research and Marketing Act of 1946.

Of interest to those in, or interested in, Forest Service: See Bernard De Voto's department, The Easy Chair, in Harper's Magazine for January and for June.

Three new publications: DDT . . . For Control of Household Pests, attractively informative, from Bureau of Entomology and Plant Quarantine and Public Health Service, dated March, 5 cents; and a publication from the State Department, entitled "Moscow Meeting of the Council of Foreign Ministers—March 10–April 24, 1947" (it is the address by Secretary Marshall, broadcast April 28), 10 cents; to get these, send the money, *in coin*, to Superintendent of Documents, Government Printing Office, Washington, D. C. The Balance Sheet of Agriculture, 1946, Miscellaneous Publication 620, is from Bureau of Agricultural Economics; get this in the Patio, or by mail, from Office of Information.

Radio people: We have secured about 60 copies of a report made to Ken Gapen, Chief, USDA's Radio Service, by Dana Reynolds after the latter had worked with field USDA and State people in nine Western States between February 25 and April 10. Dana discusses sources of information, ad lib shows, program promotion, how to get material and write regular programs, radio training schools, extension workers and the radio, and a lot of other miscellaneous topics, all quite informally. If interested in radio, you'd probably like a copy. *Write* T. Swann Harding, Office of Information, USDA, Washington 25, D. C.

We say write, do not phone, because: Editors have to be out a lot, attending meetings, digging up information, and so on, and phones just have to go unanswered then; also because the editor and the assistant editor of *USDA* are on different floors, and have different phone and room numbers, but notes, however informal, pass easily and always get prompt attention. When we say *write*, make your note just as informal as possible and toss it into regular messenger mail, if in Washington—post office if in field, and we'll do our best to give you exceedingly prompt service on any request we can answer. But give name and address in full.

Plowshares Into Swords is the title of a book Arthur P. Chew, Office of Information, expects to have published before very long. It will be a full-length development of Chew's recent provocative series of articles in The Land; for instance, see Morris Llewellyn Cooke's and Chew's articles in the Spring issue of that journal.

The Farmer in the Second World War, A new book by Walter W. Wilcox, professor of agricultural economics at the University of Wisconsin, brings to farm leaders, professional workers in agriculture, college students of economics, and others an accurate account of what went on in agriculture during the war. The book, available from your bookseller, library, or Iowa State College Press, has a commendatory foreword by Oscar C. Stine, Assistant Chief, Bureau of Agricultural Economics.

Iceless refrigerator car: Marketing Facilities Branch, Production and Marketing Administration, can supply details on tests of a refrigerator car cooled by use of anhydrous ammonia, which maintained temperatures of approximately 0° F. under conditions of summer heat, thus maintaining prime quality of frozen foods. Ordinary refrigerator cars do not do this.

Need for Multiple Delivery Points in Grain Futures Markets: This is the title of a 1½ page mimeographed document issued by Commodity Exchange Authority, May 26.

May Coult, widely known in the Department as the able foreign-language translator of Office of Foreign Agricultural Relations, now has something beautifully engraved in writing to prove what her coworkers and associates have known for a long time, namely, that she's quite an authority on Spanish-American literature. George Washington University has awarded her a B. A. upon her completion of an intensive and rather formidable course in the classical literature of the Spanish-speaking countries of the Western Hemisphere. The point of the story is that it took her 22 years to achieve the honor. She says it wasn't because she was a slow learner—just that she could attend classes only at night and other odd times. Now Miss Coult hopes the next degree she seeks, a master's, won't take so long.

European corn borer control: Details of methods suggested by Bureau of Entomology and Plant Quarantine for control of the European corn borer in market and hybrid sweet corn, and under some conditions in field corn also, will be found in No. 1256, available from Press Service; write, or phone Ext. 6114.

Dr. Charles J. Galpin, between 1911 and 1934 economist in charge of the Division of Farm Population and Rural Life, Bureau of Agricultural Economics, died in Falls Church, Va., June 1, aged 83. He was an internationally known and respected rural economist and sociologist. A native New Yorker, he attended Colgate, Harvard, Clark, and the University of Wisconsin, was the author of a number of books, editor of Country Life Books, and joint editor of the Systematic Source Book in Rural Sociology. He had lived in Falls Church since his retirement over a decade ago.

Medal for Bennett: A gold medal and the Cuban Order of Merit have been awarded to Hugh H. Bennett, Chief, Soil Conservation Service, for extraordinary services to the Government and the people of Cuba, rendered two decades ago. The award was made by Cuba's National Agricultural and Industrial Society.

Damon Runyon had something to teach us about writing: Svend Riemer, of the University of Wisconsin, discusses this fertile subject in a highly informative and readable way in Social Forces for May 1947 (Vol. 25, pp. 402–05). Better give it a look. Social Forces hails from the University of North Carolina Press. Author Riemer may have some reprints also. Title is "Damon Runyon—Philosopher of City Life."

Dye test for cotton-fiber maturity: Chemists at the Southern Regional Research Laboratory are developing a most ingenious quick dye test for maturity in fibers of unprocessed cotton lint in laboratories or dye houses. A mixture of dyes of contrasting colors and different dyeing properties is used. The thick-walled or mature fibers dye one color, the thin-walled fibers, commonly called immature, another. Differentiation is easy. For details get No. 1218 from Press Service by writing in or by phoning Ext. 6114—and when we say "Press Service" or any other unit not otherwise identified, we always mean that it is a part of the USDA.

Indirections for Those Who Want to Write, by Sydney Cox, of Dartmouth, is a commendable book. Described on the dust jacket as "an honest, searching, and urbanely casual record of the discoveries that the writer makes about his craft by practicing it, with some that he makes about life by living it," it makes stimulating reading. The first half is full of fine epigrams and practical philosophy. The whole is written in an unusually attractive literary style; even the table of contents is unique. Alfred A. Knopf of New York published the book; obtain it from bookstores or libraries. Read it by all means, whether you are only trying to write or are writing with some measure of success.

Cheddar cheese improvement: Research Achievement Sheet No. 75 (D) tells how workers in the Bureau of Dairy Industry devised a new method of making uniformly good cheddar cheese from pasteurized milk by using an active and dependable starter, and controlling the rate and amount of acid development by following an exact time schedule. The process, developed at an estimated cost of $100,000, is worth 2 to 3 million dollars annually to the cheddar cheese industry, and will be worth more when widely applied, for it upgrades millions of pounds of cheese. Procure these achievement sheets from Dallas Burch, Agricultural Research Administration (Ext. 3780).

It's the fat in those oranges, or at least it's the suspended material in the juice that contains the lipid or fatty fraction, which undergoes changes and produces that off-flavor much processed orange juice develops when stored at room temperature. Filtered juices develop some off-flavor, but not as much as whole juices, and also different in character. Peel oil is responsible for little if any of the off-flavor, though it may sometimes mask it. Juice pressed from peeled fruit developed about as much off-flavor as any other. These and other illuminating facts were developed by researches of A. Laurence Curl and M. K. Veldhuis, of our Citrus Products Station at Winter Haven, Fla.

No more coupons for sugar: As everyone knows by this time, Secretary Anderson announced the end of sugar rationing for households, hotels, and restaurants, on June 11. Rationing of industrial sugar and price controls remain in effect. Under present legislation, all sugar controls will end October 31 next.

Dr. George W. Stiles, Bureau of Animal Industry's expert on anaplasmosis, has retired. He served 45 years and since 1918 has been in charge of the pathological laboratory at Denver. He is a specialist on animal diseases that are transmissible to man, is the author of more than 60 articles on a variety of scientific subjects, and coauthor of several publications issued by Oklahoma A & M. A native New Yorker, at the age of 14 he assisted his father in homesteading in Oklahoma. He took his bachelor's degree at Oklahoma A & M. and an M. D. and a Ph. D., both at George Washington.

Farm land price conference: Announcement was made May 22 of a letter dated May 16 which the Secretary sent to a group of persons vitally interested in farm land values, calling a special Conference on Farm Land Values at USDA June 9, to discuss the rapid rise in selling prices of farm land (see release 1123 for the letter and list of persons). Land Fever is the title of the Secretary's talk before the conference. It is graphic, readable, makes full use of sound homely illustrations, and contains much information with which you should be familiar (release 1269). Resolutions adopted at the conference are in release No. 1283. Get these releases by writing to Press Service, or phoning Ext. 6114.

Accomplishment: Accomplishment requires more than brains, versatility, and a rich endowment of capabilities. Drive, self-discipline, and organization are indispensable ingredients of a success formula, regardless of what you undertake. You have only so much time and so much energy. If you elect to squander an undue proportion on recreation, social activities, hobbies, or diversions, or if you scatter your efforts over too wide a field, insufficient remains to insure achievement of your primary objectives. These gifted people you meet every now and then who have never gotten anywhere lack drive, self-discipline, and organization. But a person may go mighty far on mighty little gray matter, limited gifts, and few aptitudes, if he uses the essential drive to get the most out of his meager talents.

Bossy goes boozy: By finding a yeast that ferments lactose, or milk sugar, almost completely to alcohol in 55 hours, M. Rogosa and E. O. Whittier, Bureau of Dairy Industry, have evolved a practical method of making alcohol from waste whey from casein and cheese plants, in part using waste steam from these same plants for heating purposes. Or the whey can be transported and economically transformed into alcohol in plants at a distance. Whey protein and slops left after the process make an excellent cattle feed. Thus a former waste product, difficult to dispose of, becomes the source of valuable commodities.

Efficiency on the farm: Says Assistant Chief Sherman E. Johnson, of Bureau of Agricultural Economics: "Farmers use less than two-thirds as much labor per unit of product today as they did in 1920. In 1945 one hour of work resulted, on the average, in about one-third more milk, one-half more corn, and 2½ times as much wheat as in 1920. Each farm worker today handles more acres in cropland, and produces more crops and livestock than in 1920." Further improvement in efficiency seems feasible. In New Zealand one man milks and cares for as many as 70 cows and does all the routine farm work besides, and the average butterfat output per unit of labor increased about 60 percent from 1915 to 1940. Man-labor per 100 pounds of milk ought to be reduced by one-half in the U.S. during the next few years.

An employee writes: "Some USDA readers might be interested in a book entitled 'The R. F. D.,' written by Mrs. Gwendolyn M. Aaberg, associate editor of the National Rural Letter Carrier, which is published in Washington, in commemoration of the Golden Jubilee of the rural free delivery service, 1946. It has 11 pages of photographs showing, among other things, some of the earliest horse-drawn, mail-delivery vehicles, and some of the snow-bound and mud-bound roads which have hindered, but not stopped, rural mail service. The book tells of the development of the service since its beginning in 1896, and describes some of the difficulties under which the association magazine has been published. It sells for $1 and may be ordered from the National Rural Letter Carrier, 541 42 Munsey Bldg., Washington, D. C."

We can heartily recommend a gay and factually informative little book from Rutgers University Press, 1947, entitled "Down to Earth—The Pleasures & Perils of Becoming a Farmer," by Eugene S. Hahnel.

The Egg and . . . Dr. Byerly: Dr. T. C. Byerly and his colleagues at Agricultural Research Center have converged on the egg. By selective breeding they now can control the number of eggs hens lay, the porosity of the shells, the thickness of the whites, the average egg size, its vitamin content and shell strength, and its yolk color, through a wide range of yellows, though, as yet, no violets or greens! Better-keeping eggs and improved disease resistance in hens make rapid gains. In fact, eggs that are too big to fit snugly into standard egg cartons have already become a problem.

Fly-free barns at Beltsville seem almost a miracle to one who, like the writer, formerly worked in and around the same barns when hordes of flies were ineradicable. However spraying with DDT has put an end to the pest. Not a fly is to be seen. Even some weeks or months after spraying, the walls are lethal to flies. To get the full impact of this a person has to have worked out there in the old days when the fly was master.

"The farmer's a realist": That's what Roland B. Smith, ex-farmer, says in his "10 Reminders for Advertising to Farmers," Printers' Ink, April 11. The farmer wants factual, detailed, believable copy. Don't waste space on compliments; load it up with facts and, at all costs, avoid technical errors. Better give the article a look if you want to know more about the farmer mind. One key point—find the best farmer, sell him first, and let him act as extension worker for you—may have special practical value for you . . . and possibly the whole article will. Other pointers: Use good grammar, use plenty of photographs, answer in advance arguments his neighbor will have against the purchase, and remember farmers aren't easily fooled. Above all, no dialect, *please*.

Bureau of Agricultural Economics reports: That increased production of farm machinery and availability of agricultural workers now tend to ease the demand for unskilled white and colored farm hands, though the demand for skilled labor will remain heavy. That we now eat *more* meat, poultry, fish, vegetables, fruits, eggs, and dairy products (except butter) than before the war; *less* grain products, sugar, sirup, fats, and oils; *about the same* quantities of beans, potatoes, cocoa, tea, and coffee. That increased use of cigarettes by old smokers, and the addition of new smokers in large numbers has considerably enlarged the farmers' markets; we produced enough cigarettes during the past 5 years to belt the earth 2,500 times, if placed end to end.

Corn: Farmers today produce 20 percent more corn on 10 percent fewer acres than they did 2 or 3 decades ago. The 3-billion-bushel crops of recent years, half a billion more than those of 1923–32, came from 10 million fewer acres. The use of hybrid seed corn is the principal item making such mass production possible, and the 1946 crop was 400 million bushels greater than if open-pollinated varieties had been used on all corn acreage. But corn weather has been good in recent years, farmers use two to three times as much fertilizer on corn as they did before the war, and the use of more mechanical power also boosts production. Despite higher prices in 1944 for labor, power, and other things, farmers in two Illinois communities also produced a bushel of corn at only two-thirds the cost in 1920–28. Corn crops of nearly 3½ billion bushels may be produced fairly soon.

Flying avocados: A substantial part of Cuba's avocado exports to the U.S. will be flown here this season; last season a fifth of Cuba's total exports here—1 million pounds—was flown from Havana to Miami in a 1-hour shuttle service. Spoilage is reduced, the pears arrive fresher, aviation flies on.

Feeding value of new-type cottonseed cake: The first report on the feeding value of cottonseed cake made by the new solvent method of extraction (see *USDA* for April 28–May 12) comes from D. A. Savage, Bureau of Plant Industry, Soils, and Agricultural Engineering, who is in charge of range and forage work at our Southern Great Plains Field Station, Woodward, Okla. Savage and his associates have recently completed a 2-year study comparing the feeding value of cakes made by the new method with that of standard hydraulic-extracted material, using both products as supplementary feed for beef cattle on native range. Results show the two have about the same feeding value when processed to the same protein content.

Yeast makes a vitamin: Workers at the Northern Regional Research Laboratory have taught a yeast named *Ashbya gossypii* to make the vitamin, riboflavin. The process has commercial possibilities. Young, vigorous yeast cells do the job best; senile cells 5 days old can scarcely do it at all.

An apple tree 20 to 25 years old, producing 600 pounds of fruit per year, requires about 1½ pounds of nitrogen annually to do the job, of which half goes back into the soil in the form of fallen blossoms and leaves. That means 6 pounds of nitrate of soda, or 5 of ammonium sulfate, or 3 of ammonium nitrate. But, if the sod is heavy, more nitrogen is needed because the grass roots pick up some; the heavier the rains, the deeper the nitrogen penetrates the soil and the harder the leaves have to pump to get it out! Appletree roots take up little nitrogen during the dormant season. Finally, the higher the nitrogen content of fruit and foliage the poorer the color, especially in the East, but sufficient must be used or the trees suffer. We are indebted to Dr. John R. Magness for these facts. Get release No. 1163 from Press Service—write, or phone Ext. 6114—for more detail.

Something is being done about the weather: Years ago the Weather Bureau, when in USDA, tried to produce rain by firing cannon into clouds. Now scientists fly up into the clouds to bombard them with pellets of solid carbon dioxide, and snow or rain falls. During the war the fog was burned away from British airfields by ignition of 6,000 gallons of gasoline per bomber landed. War inspired weather-makers more effectively than did agricultural needs. What lies ahead in the matter of practical weather making we do not yet know, but certainly the scientific rain-makers of today are no longer proper butts for witty amateur meteorologists. Before you know it farmers in specific areas may have their weather tailored to their needs.

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FOR JULY 21, 1947

Howard M. Gore

ON June 20, Mr. Gore died at Clarksburg, W. Va., at the age of 69. He served as Secretary of Agriculture from November 22, 1924, until March 4, 1925, in the Cabinet of Calvin Coolidge, having been Assistant Secretary under Henry Cantwell Wallace for a year before that and, earlier still, livestock-marketing specialist in the then Packers and Stockyards Administration. After resigning from the Department Mr. Gore served as Governor of West Virginia.

Born near Clarksburg, Mr. Gore graduated from West Virginia University and soon became a leading agriculturist and livestock raiser, also a hotel man, merchant, manufacturer, and banker. During the First World War he was Assistant Food Administrator of West Virginia. He was a member of the West Virginia State Board of Education in 1920–25. After retiring as Governor, he was Commissioner of Agriculture for West Virginia, 1931–33.

He was also West Virginia Administrator of the Farm and Market Roads Administration and a member of the West Virginia Public Service Commission. He had come to Clarksburg to preside at a hearing of the latter when he became ill, was hospitalized, and died. His death leaves four surviving ex-Secretaries of Agriculture—William M. Jardine, Arthur M. Hyde, Henry A. Wallace, and Claude R. Wickard. Mr. Gore was one of the country's foremost breeders of prize cattle and, throughout his life, a leader in national farm-organization work.

C. S. Hudson: The first of two volumes of The Collected Papers of C. S. Hudson, published by the Academic Press, Inc., of New York City, has appeared, in honor of this distinguished research worker's sixty-fifth birthday. It includes many of the papers which appeared while Dr. Hudson was in our Bureau of Chemistry, 1908 to 1919, bar one year on leave at Princeton, and begins with the author's interestingly written autobiography.

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Xylose conquered

POSSIBLY that doesn't mean much to you, but xylose is a sugar. Sugars like the one common on the table, cane or beet sugar, have 12 carbon atoms; those like dextrose (or glucose) and levulose (or fructose), which make up honey, have six. They can all be fermented rather easily. But there are also 5-carbon sugars, like xylose and arabinose, which strongly resist fermentation. Many years ago the writer of these lines and C. S. Hudson perfected the first really successful methods of preparing xylose from corncobs and arabinose from cottonseed hulls, and they were very rare sugars then, selling for $250 or more a pound. We were then in the old Bureau of Chemistry—1910–18.

A. F. Langlykke, J. M. Van Lanen, and D. R. Fraser, of the Northern Regional Research Laboratory (except the first two, who by now have resigned and joined commercial firms), report on the production of butyl alcohol, an important industrial solvent, also capable of being used as fuel for standard internal combustion engines, from "xylose saccharification liquors from corncobs." This is the liquor that results after treatment of the corncobs with acids to break some of their complex constituents down into such sugars as xylose and glucose. Using a strain of butyl alcohol bacteria from the University of Wisconsin, these workers succeeded in turning about 30½ percent of the sugar fermented into solvents.

Of the solvents about 62 percent was butyl alcohol, plus 32 percent acetone, and 6½ percent ethyl alcohol. The fermentation of xylose was remarkably successful, and that is an achievement. Furthermore, the method, when fully perfected, can be applied to sugar liquors from cornstalks, straws, cottonseed hulls, and many other agricultural residues now wasted. Big future industrial processes are indicated. We never even thought of that years ago when we helped make pure xylose from corncobs and arabinose from cottonseed hulls, just to show it could be done, for these 5-carbon sugars then seemed to be mere chemical curiosities.

Food in Britain

A FRIEND, a newspaperwoman, writes from London:

How Britishers survive I'll never know. Starch is all they get. Boiled and roast potatoes appear at every meal, and no green vegetables worth a hoot. One egg a week is the ration, but it is not always available; 3 ounces of butter, 2 of cheese, 2 of bacon—*per week per person.* A meal in a restaurant must not cost over 5 shillings, and you get nothing for it. A meal consists of three courses, so-called—appetizer, which may take away the appetite; main dish, meat or fish, which tastes like neither; and a "sweet" which I have yet to find so. Bread? No, sir. That's a course. If you insist, they bring you two thin slices of putty, call it a course, and you lose your "sweet." I did it once. It wasn't the better of two evils, so I keep fork in left hand, knife in right hand, and, having no more hands, forget about bread.

And we think things are tough here. Moreover they are even worse in many parts of the world than in Britain, and true democracy and habitual malnutrition are incompatible.

Dr. Lowdermilk

DR. Walter C. Lowdermilk retired the last week of June as assistant Chief of the Soil Conservation Service. The career of this noted conservation scientist began in 1915 when, as a forest ranger, he rode the ranges of Arizona and first realized the devastating effects of soil erosion on overgrazed arid land. He served with the Engineers of the A. E. F. in World War I, then spent 5 years in China charting erosion in the Yellow River Basin. Home again in 1927, he became project leader of erosion and streamflow studies for the Forest Service. He founded the San Dimas Experiment Station for study of forest hydrology, in 1930, and continued this highly specialized type of research until called to Washington, in 1933, to assist Dr. Hugh H. Bennett in organizing the national soil conservation program.

Representing the SCS, Dr. Lowdermilk has traveled in many countries to make on-the-ground studies of various land-use methods and their influence on human advancement, and to discover land- and water-saving practices which might be adaptable to the farms and

ranges of the U.S. His writings—a hundred or more monographs, articles, books—attest the value of such explorations. The Department does not wholly lose Dr. Lowdermilk, for he has been appointed a collaborator and will continue to provide Agriculture with consultant services.

Tourist bait

REMEMBER the greenhouses on the roof of the South Building of the Department in Washington, D. C.? They were almost directly over the office rooms we once occupied. We recall these greenhouses being referred to as "tourist bait," constructed, so it was said, merely as a stunt to get the Department's work talked about. Even from this angle, we thought they were an excellent investment. It turns out, however, that these greenhouses more than justified their cost; they produced one dividend that alone will return the taxpayer's investment in the greenhouses a thousandfold.

The greenhouses are gone. They were moved out, or off, some time ago. Much of the work that would have been done in them is now being carried on in the greenhouses of the Plant Industry Station at Beltsville, Md. The roof greenhouses are gone, but their memory lingers on. It will linger long because in one of them, some 10 years ago, J. Allen Clark, of the Division of Cereal Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering, made a cross between the Merit and the Thatcher varieties of wheat. The resulting hybrid has been named the Cadet, and is being introduced into commercial culture by the Department, in cooperation with the North Dakota Agricultural Experiment Station.

Cadet is a new hard red spring wheat, outstanding in yield, quality, and disease resistance. That's no guess. Cadet wheat has already proved itself in comparative tests at more than a score of stations in eight States. It has outyielded other beardless wheats and compares favorably with all other varieties of hard red spring wheat in resistance to stem and leaf rusts. And it is 2 to 4 days later than most of the other awnless varieties—meaning that it's a good bet for the northern part of the Wheat Belt.—JOHN A. FERRALL, PISAE, *retired.*

Miss Helen W. Atwater, retired editor of the Journal of Home Economics and daughter of W. O. Atwater, pioneer U.S. and USDA nutrition scientist, died June 25.

Catering to the azaleas' appetite

MOST plants and flowers—all that we have met personally at least—know what they want to eat and how much, and you just better pay strict attention to their whims, for they are whims of iron, at least in azaleas. Studies by our Dr. Neil Stuart, Bureau of Plant Industry, Soils, and Agricultural Engineering, indicate that azaleas pine into nutritional deficiency when iron is lacking. Moreover the azalea is very particular about its iron. You can't feed it pork chops and get it full of pig iron.

Seriously: The azalea will not make use of iron in an alkaline soil. Furthermore the iron must be teamed up with other plant nutrients, like potassium, calcium, and magnesium, before the azalea can benefit from it. Deficiencies of even these other minerals show up as iron trouble in the azalea. The leaves turn yellow, bronze, and curl inward when potassium is deficient; terminal growth stops. Magnesium deficiency produces other leaf troubles—yellowing, followed by the appearance of brown dead areas on tips and margins of lower leaves, which soon break off. Rooted cuttings grow slowly through lack of phosphorus; they have dull-green leaves which finally turn dark and drop. Lack of manganese produces leaf yellowing less extreme in character than that caused by iron deficiency.

Nitrogen-starved azaleas have a ragged, uneven appearance, are stunted, with small, pale-green leaves, the lower leaves turning yellow or red, then falling. Moreover the azalea likes its nitrogen in the form of ammonium sulfate, which renders the soil acid, thus making iron available to it. Calcium and sodium nitrate are not relished by azaleas, because the plant leaves the minerals behind in the soil after absorbing the nitrogen, this produces soil alkalinity, interferes with iron absorption, produces iron chlorosis. To have a beautiful garden you must know the whims of your plants and flowers, and humor them.

Are you in a quandary? Would you be aware of it if you were? While the book by Wendall Johnson, University of Iowa Psychological and Speech Clinic, entitled "People in Quandarics—The Semantics of Personal Adjustment," contains a rather odd admixture of subject matter, you will be bound to find something therein to interest and instruct you, whether you are just a common run-of-the-mill employee or a supervisor. The book was published by Harper & Bro.—is available from libraries and bookstores.

Words

LONG AGO Francis Bacon discerned that the great and solemn disputations of the learned were in the main controversies about words. Today we may argue whether a condition caused by nutritional deficiency is pellagra, pellagra-like, or canine black tongue, without defining any one term as definitely as it should be defined. Since definitions themselves are words, words constantly beget words, and, as Hobbes had it in his Leviathan, "Words are wise men's counters, they do but reckon with them; but they are the money of fools."

Is a filter-passing substance—a virus—living or not? We cannot say definitely, because we have not decided upon the exact group of qualities or characteristics that, in our opinion, add up to life or to nonlife. Living and nonliving, crystalline and noncrystalline, organic and inorganic, are all undefined opposites which merge into one another by subtle gradations. It is a matter of convenience for science to have such terms, yet they are ill defined. J. B. S. Haldane has remarked that protoplasm is a mere repository for ignorance, as no one knows what it is. To analyze it is to deprive it of the life quality which makes it protoplasm.

So it is very hard to know what we are talking about under the best of conditions. This difficulty has been enhanced by the extreme specialization of science, which now enables two groups of research workers in two separate rooms to discuss precisely the same phenomena in languages so different that one group cannot comprehend the other. As early as 1927 an observer declared that, at the Leeds meeting of the British Association for the Advancement of Science, the papers presented were so specialized, and so garbed in wicked terminology, as to render them comprehensible only to a limited number of those in the particular section before which they were delivered. Said Nature, of London:

> There would be little occasion for lengthy comment were it only the youthful aspirants for scientific honors against whom this charge of obscurity could be brought. We could rely upon time to purge them of the conceit of demonstrating familiarity with their newly acquired forms of expression in order to win a reputation for erudition. Unfortunately, some of the addresses delivered by sectional heads at Leeds exhibited the same weakness. From the point of view of title, subject matter, and form of presentation they were alike calculated to produce in many members of the association a feeling of bewilderment! The advancement of science depends upon the encouragement of research. The public must be better informed if it is to appreciate to the full the need for more and more research. It will not willingly endow what it cannot understand.

That is as true here as in Britain, as true of informing Congress of it is of Parliament or members of the lay public anywhere. Possibly had scientists sufficiently understood one another we might have been spared the rigors and tenuous blessings of two world wars.

Brief but important

The Secretary's statement before the Subcommittee of the Senate Committee on Appropriations, in regard to the USDA Appropriations Bill for 1948, was made June 12, and should be read by all who want to inform themselves on matters of basic policy. It is admirably prepared and makes easy reading. Procure from Press Service by mail or by phoning Ext. 6114; ask for No. 1293.

Dr. David Fairchild's latest book has already been mentioned once herein, but that was a mere announcement. Having read it, we now pronounce it gracious, urbane, highly informal, instructive, and entertaining, which is about all you could expect of a book. The author really converses with the reader, leads him away from the typewriter to look at some vine or tree, returns with him to the study and continues the conversation. Full title of the book, "The World Grows Round My Door, the Story of the Kampong, A Home on the Edge of the Tropics"; published by Scribner's; available at libraries and book stores. The USDA Library has copies.

David B. Godwin, Forest Service's Chief of Fire Control, was a victim of the Virginia plane disaster on Black Friday, June 13. A native of Virginia, Godwin joined FS before World War I, left it to serve with the Army engineers, graduated from the Army General Staff School and its School of the Line later, and worked several years as a labor relations adviser for a New York textile firm. He then returned to FS, and during World War II was its principal liaison man with the military services. He directed 200,000 volunteers in aircraft warning service and 100,000 troops in plane spotting and fire fighting. He pioneered in developing FS's smoke-jumping corps of parachutists. He had been out on a field inspection trip.

O. E. Reed honored: The Lafayette, Ind., Journal and Courier, for June 14, reported Purdue University honors for a distinguished group including the Chief of the Bureau of Dairy Industry, described as "one of the best known dairy educators in the U. S." Mr. Reed, who formerly headed the dairy department at Purdue, was granted a doctor of science degree for his achievements in his chosen field.

Federal Crop Insurance Corporation: Secretary's Memorandum No. 1196, June 26, transferred FCIC from Production and Marketing Administration and established it as a separate organizational entity in the Department. This order became effective July 1. Procure the memorandum from the Secretary's Records Section if you need details.

Plant food materials: Secretary Anderson's address before the American Plant Food Council, June 14, contains useful facts regarding organized agricultural abundance, world nitrogen supplies, the use of plant food materials to combat world hunger and to conserve and improve the soil, increases in yields when fertilizers are properly used, and so on. Procure from Press Service by mail or phone (Ext. 6114); ask for No. 1309.

E. L. Patton has succeeded I. E. Knapp as head of the Naval Stores Research Division, Bureau of Agricultural and Industrial Chemistry, the latter having entered private employment in the wood naval stores industry. Colonel Patton has been associated with AIC since 1933, at Olustee, Fla., except for 4 years he spent in the armed forces, rising from captain in Army Ordnance in 1941 to colonel on his discharged in 1946. A native of Georgia, he took his bachelor's degree in chemical engineering from Georgia School of Technology. He is now located in New Orleans.

What's Left in the Leaves: A story of the work on vegetable wastes, carried on at our Eastern Regional Research Laboratory near Philadelphia, will be found under this title in The Progressive, Madison, Wis., for June 16, page 9. From the valuable food elements found by the chemists in these wastes from vegetable growing, marketing, and processing, it sometimes seems as if we throw away the more nutritious parts of the plants and then eat the remainder!

A singularly durable coating for wood, highly resistant to wear, hot oils, and heat, has been developed from ordinary table sugar, or sucrose, by P. L. Nichols, Jr., and E. Yanovsky, of the Eastern Regional Research Laboratory. As prepared it is a heavy, light-yellow liquid which, when exposed to air or oxygen, particularly at elevated temperatures, increases in density and viscosity, and finally hardens into an insoluble, infusible, transparent resin. Properly cured films of it are insoluble in all organic solvents so far tested. The coating possesses high gloss and extreme hardness, yet sufficient flexibility to expand its usefulness. Its transparency suggests use as an adhesive for glass. The coating and impregnation of paper, textiles, and other materials for water and grease proofing and increase of their tensile strength are distinct possibilities. Thus an entire new field of research opens on the industrial utilization of sucrose and its derivatives.

At long last quackgrass is on the skids: Unfortunately 2,4–D does not control the weed grasses, but during World War II British scientists found that isopropyl-N-phenyl carbamate (IPC for short) killed some members of the grass family, but was noninjurious to broadleaved plants such as 2,4-D kills. This led to work at our Plant Industry Station, which indicates that IPC will eradicate quackgrass. The chemical seems to be absorbed through the roots; applications to the soil are better than to the leaves. IPC can be purchased at some chemical supply houses, but if you are bound on experimentation, first get press release No. 1374 from Press Service—write in, or in Washington phone Ext. 6114—and read it carefully.

Price-support programs: The following press releases may be of interest to you: No. 1358 on the 1947 price-support purchase agreement, purchase, and loan program for oats; No. 1361, the 1947 price-support purchase and loan program for grain sorghums; and No. 1359, the price-support program for 1947 crop wheat. Procure from Press Service by mail; in Washington phone Ext. 6114.

Magic farm technology: According to Reuben W. Hecht, of the Bureau of Agricultural Economics, it took only 21 billion hours of labor to achieve the current year's farm production, but with 1920 methods, tools, crop varieties, and livestock practices, farmers would have had to put in 30 billion hours of work. Such is the magic of modern farm technology. Farmers now produce a third more than in World War I, in about 10 percent less time, while the work is leveled out, much more evenly divided among the seasons. For details see the lead article in June Agricultural Situation.

Silage: Research Achievement Sheet 76 (D), procurable from the Agricultural Research Administration, tells about the method T. E. Woodward and J. B. Shepherd, of Bureau of Dairy Industry, devised for making good silage from grasses and legumes by wilting them to 58–68 percent water content, instead of using mineral acids or fermentable carbohydrates which produce acids to prevent spoilage. This achievement cost about $44,000 and is worth $750,000 a year to farmers, at a low estimate.

Migratory appetite: That's an apt description of the Mormon cricket which eats its own weight in food a day, as compared with a beef animal, which takes 7–8 days to consume its own weight of grass. In fact, under good conditions, an adult grasshopper can eat its own weight in 16 and a Mormon cricket can do the same in 18 hours! Imagine a 225-pound man doing that, if you can. That is why bait of bran mash, thoughtfully poisoned with sodium fluosilicate, is served to grasshoppers and Mormon crickets in wholesale lots. Farmers just can't have their wheat, alfalfa, sugar beets, garden crops, and range-land grasses carried away by a migratory appetite.

Federal lands: Of the 1,905 million acres of land in the U.S., 560 million acres are in public ownership, 458 million being owned federally. At various times the Federal Government acquired 1,442 million acres of public domain land; it disposed of all but 412 million for land settlement, internal development, and as a source of revenue. In addition to the public domain the Federal Government acquired some 50 million acres between 1925–40, by purchase, gift, and similar processes, and during World War II it bought 7 million acres for military purposes, of which 1.5 million have been declared surplus and are in process of disposal. There never was any public domain in the original 13 States or in Texas. The great bulk of Federal land is now in 11 Western States. For more detail see Status of Federal Lands, an article by V. Webster Johnson, in the August Journal of Farm Economics.

That Newton apple tree: Apropos of the mention in May 26-June 9 *USDA* of the item in Cornell Plantations about the tree from which the apple dropped upon the head of Sir Isaac Newton, proving to him conclusively the existence of the law of gravitation, we are able to add the information that the Plant Industry Station at Beltsville, Md., has received through Ross Pier Wright, Chairman of the Pennsylvania Historical Commission, a grafted tree that is a direct descendant of the original Newton tree. (National Horticultural Magazine, 22:1, 114, 1943.) This tree has been planted temporarily in a nursery row until a planting plan is approved. With an opportunity to sit and ponder beneath the branches of such a tree, we may confidently look forward to even more epoch-making discoveries by the scientists at Beltsville.—JOHN A. FERRALL, PISAE, *retired.*

Government efficiency—Farmers Home Administration department: "You can talk all you want about Government inefficiency, but you ought to see how the FHA filing system operates. Smith Black was looking for a paper in his file today; finally gave up, and in despair asked the 'new girl' in his office, who, trained in Government filing methods, was spending her first day in his office. We were amazed to see her select the right drawer out of probably 20 with unerring accuracy, riffle through the contents once lightly; jerk out the proper paper in less than a total of 10 seconds time. The 'new girl' was Mrs. Iva Jewell Truitt, of Fulton. And she'd never been in the office before! That's the Mexico (Mo.) brand of Government inefficiency." (Mexico (Mo.) Evening Ledger, June 5.)

Public lands controversy: Proposals by a group of western livestock men to get exclusive use of federally owned grazing lands through transfer of ownership, or greater control for themselves through restrictions in present authority of Federal agencies to administer grazing on these lands, have precipitated a hot controversy in recent months. The proposals reflect, among other things, resentment of some livestock men against reductions in numbers of stock allowed to graze under permit on the National Forests. Forest Service made these reductions to protect watersheds and allow overgrazed ranges to recover. The livestock group has accused FS of arbitrary and dictatorial methods in handling grazing permits. The Izaak Walton League, American Forestry Association, and many other conservation, water use, and civic organizations have risen to the defense of FS' grazing policies. A subcommittee of the House Public Lands Committee is investigating FS range administration and plans to hold hearings this summer at several points in the West.

Promising new drug reported: The new drug, gramacidin, may be as important to surface medication as penicillin is to internal treatment, it is indicated in new research at California Medical School, in collaboration with the USDA Western Regional Research Laboratory, Albany, Calif. A modification of gramacidin, soluble in water, weak enough to cause no toxicity and yet strong enough to kill bacteria, was devised by laboratory workers and tested by California University. In its original form, the new drug proved too toxic for use and destroyed red blood corpuscles, while it was hard to dissolve it in water. There is yet no indication, the California report says, that gramacidin causes severe systemic reactions after repeated use.

Science gleanings: The following releases, available from Press Service—write in, or phone Ext. 6114—may interest you: No. 1382 reviews work by USDA scientists on the recovery of a valuable hard wax from sugarcane filter press cake; No. 1404 reviews progress in the field of synthetic fibers other than rayon, including cellulosic, glass, resin, and casein fibers· No. 14^6 describes how airplanes sprayed 387,000 Idaho forest acres (three times the land surface of Rhode Island) with DDT to save 60 million dollars worth of timber from destruction by tussock moths, for insects do more forest damage than forest fires; No. 1414 reports two new insecticides—benzene hexachloride (alone and with DDT) and chlorinated camphene—for control of cotton pests are being tested on a large scale in fields this season.

The agricultural engineers: Lou Childers, of Plant Industry Station, Beltsville, Md., recently sent us interesting information on the following topics, which we lack space to reproduce here, but about which he can tell you more if you write him: A new mechanical method of handling cottonseed with small air pipes, designed to keep them pure and uncontaminated; a new type slatted-floor hay drier, cheap to install, effective in operation; and some extremely valuable material on methods of scientific apple storage which effect faster and more uniform fruit cooling on a new so-called "reversed air" principle.

The Research and Marketing Act Committees, plus other background information, will be found listed in release No. 1342, available from Press Service; field workers write in, Washington workers phone Ext. 6114.

How to Make Yoghurt: Get your copy now. It's a processed publication by L. A. Burkey, Bureau of Dairy Industry, revised May 1947. Apply to BDI Information, phone Ext. 2360.

J. A. Evans, formerly associate chief of the Office of Cooperative Extension Work, and one of the first field agents appointed by Seaman A. Knapp, founder of Extension Service, died in Washington June 22, aged 84. An Illinois farm boy who attended University of Missouri, he retired from Federal service December 31, 1933, but served as assistant to the Director of the Georgia State Extension Service, 1934–41.

C. B. Hodges, Associate Director, Field Service Branch, and Deputy Administrator, Production and Marketing Administration, died suddenly in his South Building office in Washington on June 24, aged 46. A native of Ector, Tex., and a graduate of the University of Texas, Mr. Hodges was on the history faculty of this institution for some years. He later became connected with the War Food Administration in Dallas and Austin, and, in April 1946, was called to his assignment in Washington, after having been State Director of FSB, PMA, since August 1944. (See also last column, p. 4, *USDA* for May 26–June 9.)

J. P. Schaenzer, head of the electro-agriculture section of Rural Electrification Administration's Technical Standards Division, was recently elected chairman of the Washington Section of the American Society of Agricultural Engineers. He succeeds A. T. Holman, of the Bureau of Plant Industry, Soils, and Agricultural Engineering. Mr. Schaenzer, who has also served as chairman and vice chairman of the Farm Electrification Division of the ASAE, is a recognized authority on the use of electricity on the farm and in the home. As Project Director of Rural Electrification at the University of Wisconsin, he taught one of the first special college courses on rural electrification, and is the author of the first textbook on this subject, a book still a standard text in this field. In his present position, he is REA's liaison between various research groups on the one hand and equipment manufacturers on the other, expediting the job of getting the findings of research men incorporated into the electrical equipment which rolls off industrial assembly lines.

Abridged List of Federal Laws Applicable to Agriculture: This, our *USDA* Document No. 2, also contains references to former USDA functions. The Office of the Solicitor has just brought it up to date. Please *write* (instead of phoning) the most informal note possible that we can read, saying you want No. 2. Address T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Information activities of the Department of Agriculture: The Summer issue of Public Opinion Quarterly (Princeton, N. J.) is scheduled to contain a complete historical exposition of the informational activities of USDA from their inception in the Patent Office, when it was in the Department of State, up to date.

August 4 will be an important date in soil conservation: It is the tenth anniversary of organization of the first soil conservation district in the U. S.—which means in the world. The first was the Brown Creek Soil Conservation District in Anson County, N. C. Anson is the home county of Dr. Hugh H. Bennett, Soil Conservation Service chief, whose agency gives technical and certain other assistance to these districts. Farmers and ranchers so far have voted nearly 1,900 soil conservation districts under State enabling laws, including almost three-fourths of all the farms in the country. They are distributed among all 48 states and Puerto Rico. Alaska, Hawaii, and the Virgin Islands also have passed districts legislation recently.

Important Recent Achievements of Department of Agriculture Scientists: The July 1 issue of this, our *USDA* Document No. 6, has somewhat belatedly appeared, full of information helpful to you, to magazine editors and writers, and to citizens generally. We regret that two or three agencies had nothing new to crow about, but the others provided a fine assortment of fresh items. Please *write* (instead of phoning) the most informal note possible that we can read, saying you want No. 6. Address T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Drought, Its Causes and Effects, by Ivan Ray Tannehill, Princeton University Press (Library has copies) is an extremely readable book full of weather lore, scientific meteorology, and novel theories about droughts.

Japanese beetle: The New York Herald Tribune ran an editorial in its issue of July 11 with reference to the annual resurgence of the Japanese beetle, and entitled "Beetle Tourist Season Opens." It told how the ambitious insect is well aware of the value of air transport in getting around a land so much larger than its original home. It remarked also on five girls employed by the Bureau of Entomology and Plant Quarantine at La Guardia Field, to serve as inspectors and beetle stoppers. They were said to be especially adept in discovering the insects when "attached to the back of a garbardine suit or iridescently ornamenting a wash frock." The editorial also observed that "any touring beetle finding itself getting beyond old Bennington (Vt.) will doubtless turn back under its own power, heading for Vineland, N. J., or the floral sustenance of Bucks County, Pa."

Dan Braum, Office of Personnel, is on an official trip in Scandinavia. During the week of June 9–13 he spent a period working with Dr. Henri Dey·Farth, Oslo, Norway, on muscular pain resulting from accumulated fatigue, along the line of research being conducted by Dr. Farth, who is especially interested in the study of typewriter heights and the proper position for typing as affecting the muscles of the typist.

Iowa State College announces that it has honored C. F. Curtiss, dean emeritus of agriculture, by renaming after him Agricultural Hall, built in 1909, and Anson Marston, dean of engineering, by naming after him Engineering Hall, completed in 1903.

Special Cereals Conference: This conference was convened in Paris, having been called by the Food and Agriculture Organization at the request of the International Emergency Food Council. Secretary Anderson made an important policy statement there on July 9. If you want to read it, write or phone (Ext. 6114) Press Service, and ask for No. 1480.

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USDA

FOR AUGUST 4, 1947

Out of hock

WITH the receipt of $76,740,158 by the United States Treasury from the Federal Land Bank at St. Paul, all 12 of Farm Credit Administration's Federal Land Banks became wholly owned by farmers and ranchers who have loans from them. They are out of hock to Uncle Sam. The cooperative Federal Land Bank System is now owned lock, stock, and barrel by those who use it; all Government capital and surplus have been returned to the Treasury. That is an achievement. Put up a flag!

The Federal Farm Loan Act, approved July 17, 1916, established these Federal land banks, and they came into FCA under Executive Order 6084, effective May 27, 1933, on its establishment. It was the intent of Congress that farmers and ranchers who get loans from these banks should ultimately own them, and, just before the last big depression broke, they were actually within one-fifth of 1 percent of that goal. Then, at the request of Congress, the banks undertook the refinancing of much of the Nation's total farm mortgage debt.

Over 1¼ million farmers have borrowed almost 5 billion dollars on their farm mortgages since this land-bank system made its first loan, April 10, 1917. Complete member ownership is now likely to continue indefinitely, as the banks are in excellent financial position, and farm-loan associations are better off than ever before. Some years ago the banks individually began repayment of funds advanced by the United States Treasury for stock purchases and subscriptions to surplus. The final payment mentioned above was made a year in advance of original plans.

Commodity Credit Corporation: Was continued as such without change until June 30, 1948, by S. 350, approved June 30, Public Law 130, Eightieth Congress.

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New Federal law

THE new Insecticide, Fungicide, and Rodenticide Act, regulating the marketing of economic poisons, became law June 25. It will be enforced by the Livestock Branch of Production and Marketing Administration, and replaces the Insecticide Act of 1910. It greatly expands public protection in this field, and is of much importance to industry and the general public, for it is designed to insure that insecticides, fungicides, rodenticides, and herbicides will do what their manufacturers claim they will.

Under this law economic poisons must be registered prior to sale or introduction into interstate and foreign commerce. They must bear prominently displayed label warnings of highly toxic ingredients, as well as ingredient statements. Specified white powder poisons must be colored or so discolored that they cannot be mistaken for flour, sugar, salt, baking powder, and such articles used in preparing foodstuffs. The products must bear adequate instructions for public protection when used. They can be declared misbranded if injurious to man, vertebrate animals, or vegetation—weeds excepted—when properly used. Information is also required on the delivery, movement, or holding of economic poisons and devices.

The Secretary must formulate rules and regulations for administration and enforcement. More detailed information may be found in a mimeographed document issued by Production and Marketing Administration in June. Procure it by phoning Extension 5223 or writing Information Service, PMA, USDA.

John L. Shaffer, Production and Marketing Administration, was elected employee member on the USDA Board of Review on Efficiency Ratings for the term ending June 30, 1948, with Clyde R. Johnson and James E. Horton as first and second alternate, respectively.

Plant Industry Station

THIS is the country seat of the Bureau of Plant Industry, Soils, and Agricultural Engineering, at Beltsville, Md. You may want to go out there sometime; you may want to find things quickly. We recommend a new brochure entitled "A Visitor's Booklet," dated May 1947, prepared by Marguerite Gilstrap, and designed to acquaint visitors with the work carried on at the station and its location.

There are ample maps and diagrams of the farms comprising the station, and the visitor is initially given those indispensable facts he or she needs to know about when buildings are open, how to get to the station, and the scope of PISAE work. After a brief history of the bureau, there are concise discussions of every line of research work carried on, plus information on the building and room to visit to find out details.

Plant Industry Station covers 1,340 acres. Its main buildings are about 13 miles northeast of Washington, D. C. About a third of PISAE's research is carried on in the laboratories, greenhouses, fields, gardens, and orchards at Beltsville, some of them spreading over into the Agricultural Research Center. The remainder of the work is located in areas throughout the country where the major crops under investigation are grown. A map shows the principal field stations throughout the United States and also gives the location of the foreign stations. Procure the booklet from J. K. McClarren, Plant Industry Station, Beltsville, Md.

Hunger in India

Possibly few of us noticed that India did not actually have the famine so freely predicted in 1946, in which 15 million were expected to starve to death. The catastrophe was not fended off by some miracle, but by competent human management. A tidal wave and two successive droughts destroyed the equivalent of a year's grain supply for 1 Indian out of 10; India appealed for 4 million tons of grain to tide her over till the next harvest—virtually no reserves existed—but she got less than half that.

However, the Food Minister, veteran Congress Party leader Dr. Rajenda Prasad, forbade hoarding and, in 2 months, had the food situation under control by rationing grain to 150 million people in all cities and towns of any size. Wheat-rich Punjab was induced to cut its food consumption and ship grain to South

and Central India. Bombay forced grain wholesalers out of business and established retail grain depots under Government operation about every 10 miles in the countryside. Madras organized a chain of producer-consumer co-ops. The black market was strictly controlled.

The central Government scoured the world to turn Indian jute and textiles into corn and rice. It resold to the Provinces at going rates food imported at inflated prices, the public treasury absorbing the loss. Momentary surpluses were shifted to where the need was greatest. India escaped wholesale starvation, but millions were desperately hungry for months. The daily grain ration was less than two cups of uncooked rice which, with vegetables, and a little oil and sugar, provided only 1,600 calories per person per day. India's grain reserves remain frightfully low. But her heroic record of coping so efficiently with a catastrophe so horrible is inspiring.

Wells takes oath

ON July 8 the Senate unanimously and without debate confirmed the nomination of James E. Wells, Jr., Deputy Governor of the Farm Credit Administration, to be Cooperative Bank Commissioner, FCA. At 11 a. m. July 14, he took the oath of office in the FCA conference room, South Building, in the presence of Secretary Anderson, just returned from the cereal conference in Paris, Under Secretary Dodd, Governor Duggan, and a considerable group of friends and well-wishers.

Mr. Wells entered Government service in 1927, after having been a country grain buyer and a county agricultural agent in South Dakota. Since that time he has been deputy cooperative bank commissioner, director, and secretary-treasurer of Commodity Credit Corporation, acting president of the Regional Agricultural Credit Corporation, special assistant to the Secretary, Agricultural Marketing Administrator, and, since 1942, Deputy Governor of FCA. He is a graduate of Wisconsin with a postgraduate degree from California.

S. D. Sanders, who retired as Cooperative Bank Commissioner, a position he has held since 1936, spent much of his life working for and managing farm co-op marketing associations in Washington State. The new FCA Deputy Governor is Robert L. Farrington, a career employee with a long record of experience in agricultural credit and finance who, after active service in France in World War I, engaged in banking and law practice in Oklahoma. He became a loan examiner for the Federal Farm Board in 1933 and was later the first secretary of the Central Bank of Cooperatives, having been Chief of the Farm Board's loan administration section when it became part of FCA in 1933. A Texan by birth, he early moved to a farm near Frederick, Okla.

George S. Jamieson

DR. JAMIESON has retired after 30 years service in USDA, which began in the Bureau of Chemistry, in 1917, and ended in the Fats and Oils Branch, Production and Marketing Administration, June 27 last. He is an outstanding authority on fats, oils, and waxes whose book. Vegetable Fats and Oils, first published in 1932, and appearing in an enlarged second edition in 1943, is the "Bible" of the trade. Before he came to USDA, Dr. Jamieson was an instructor at Yale. He was in charge of Chemistry's Oil, Fat, and Wax Laboratory from 1919 until June 1943. While with the Bureau he published 107 articles and 2 books, the second of the latter being his Volumetric Iodate Methods, which appeared in 1926.

Both his books have had a wide and international distribution. His publications total 137, including those which appeared before he came to the Department, many of them dealing with chemical investigations on the general composition of various fats and oils, chiefly of vegetable origin, and several concerned with procedures for testing oils and oilseeds. His knowledge of his subject is stupendous and cyclopedic. He is truly a gentleman and a scholar whose contributions have been invaluable to departmental progress and functioning in the field of his specialty.

In 1847

JUST a century ago United States cotton surpluses were causing concern, and the suggestion was being made that the stuff might be used instead of hair or moss to make mattresses! An anticipated crop of 2.3 million bales was viewed with baleful forebodings. If the crop proved that large, the planters of the South felt that only a season of bad cotton-growing weather could save them from disaster, for the carry-over would be 904,000 bales with that much coming up.

Edmund Burke was Commissioner of Patents and, as such, had charge of whatever work the Federal Government was doing for agriculture. As there was no appropriation for such purposes in 1846, Burke merely mentioned the interruption to agricultural work in his report dated January 1848, which covered the year 1847. He described agriculture as "the greatest transcendent interest of the Nation." He also wrote that the farmer:

". . . had equal reason to console himself with the honorable character and exalted dignity of the pursuit in which he was engaged. No occupation offers a greater field for experiment, and for the application of science directed by sound judgment. Experience has proved that every grain, vegetable, and fruit is susceptible of improvement by scientific cultivation."

He told in his report of magic transformations wrought in the potato, the peach, the apple, and other fruits and vegetables, by scientific means. He remarked also that "genius has stooped from her lofty flight" to lessen the burden of the farmer's toil by giving him new, useful, and valuable implements and machines. He requested that the scientific staff of the Patent Office be increased. The agricultural appropriation for the year was $3,000. Things have been tougher than they are now!

Statistical Laboratory

YOU are possibly aware that the Bureau of Agricultural Economics has a cooperative project with Iowa State, at Ames, known as the Statistical Laboratory of Iowa State College. You have probably seen articles about or heard mention of "The Master Sample." We have recently come into possession of a number of copies of a handsome booklet entitled "An Editorial View of Sampling at Iowa State." It is a collection of articles about this Statistical Laboratory, reproduced from the Des Moines Register.

If you would like to attain some understanding of what the laboratory does, how it does it, and the value of its achievements, we suggest you send for a copy. It is described by a research associate at the laboratory as "a fine job of writing, in that it presents some rather technical points in a clear, nontechnical manner." To secure a copy, write to T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

We also chanced upon the May 1 issue of Statlab Review, a processed periodical publication of the Statistical Laboratory.

It seeks to explain statistical research and related developments so simply that even statistical illiterates, like the writer of these lines, can get the hang of it. Some USDA people are already on the mailing list to get it; others will be listed gladly. To secure Statlab Review, address Joseph C. Dodson, Statistical Laboratory, Iowa State College, Ames, Iowa.

It's a chestnut now

"WOODMAN, spare that tree, touch not a single bough," was written of the sturdy oak—but it's a chestnut now! And a Chinese chestnut at that. Yes, we bring you the cheerful news that there are blight-resistant Chinese chestnut trees able and willing to take the place of the American sorts that have fallen victims to the blight disease. The nuts are good eating, fully as sweet as our dear departed American sorts; some of them larger and more attractive in appearance. The trees will grow well throughout the old range of the American chestnut, and even farther southward, toward the Gulf Coast. They do well, also, in certain valleys and foothills of California.

Time was, of course, when we had plenty of fine American chestnuts throughout much of the East. "Gone, all gone, the old familiar faces." Well, almost; and chestnut blight threatens to take the few remaining trees before very long. Stark skeletons of some of them still stand in certain forests, and they are still felled and processed for tannin.

When we had plenty of good American chestnuts, we were, quite logically, not much interested in foreign sorts. Fortunately, in 1906, the Department did bring in some seed nuts from China. Planting these and growing the seedlings, we discovered that some of them were very much worth while. Still, we had good chestnuts of our own; we couldn't work up much excitement over these Chinese. Then chestnut blight moved in. Almost overnight the American chestnut trees were doomed. Interest in the Chinese blight-resistant trees zoomed. Now we are well on the way to the creation of a new chestnut industry based on these Asiatic varieties. It will be some time, of course, before you can get strictly first-class trees; and planting run-of-the-mill seedlings is apt to be a discouraging experience. But the better sorts are coming; and they are well worth waiting for.—JOHN A. FERRALL, PISAE, *retired.*

(We regret that this is the final article by "Jack" Ferrall, our most industrious, enlightening, and readable contributor. He was kind enough to leave us two or three items when he picked up his hat and retired to the California sunshine, where we do so sincerely wish him long life, good health, and happiness unadulterated.—Editor of *USDA.*)

Brief but important

Fire! USDA agencies suffered a fire loss of over $76,000 during the 1945–46 fiscal year, there having been 90 fires, 18 of them disastrous and costing more than $1,000 each; there were also 2 fatalities and 10 nonfatal injuries. The large number of fires caused by smoking or by the boiling over of pots on kerosene stoves, especially at labor centers, is impressive. But faulty wiring especially and electricity generally caused the most expensive of the fires.

Germ-killer in bran: Harry Humfeld, of our Western Regional Research Laboratory, reports finding in bran a fraction that has antibiotic propertles. It has some characteristics of a fatty acid and forms a water-soluble potassium salt or soap which has a comparatively high activity against *Staphyloccus aureus, Micrococcus conglomeratus, and Streptococcus faecalis,* though it is inactive against *Escherichia coli.* Humfeld suggests that, when materials of plant or animal origin containing fats or fatty acid constituents are used in microbiological studies, the possibility that some of these constituents may be antibiotics should be considered in order not to confuse their activity with that of micro-organisms.

Paul H. Appleby has two interesting articles in the spring issue of Public Administration Review, one entitled "Harold D. Smith—Public Administrator" and the other "Toward Better Public Administration," an address he made earlier in Washington, D. C.

Harry Dechant, USDA regional attorney at San Francisco, retired June 30. Mr. Dechant, who is referred to as "dean of regional attorneys," has been with the Solicitor's Office in San Francisco since March 1910. He received a B. A. from the University of Cincinnati in 1904, and was graduated from Cincinnati Law School in 1906. Following graduation, he was with the Cincinnati City Solicitor's Office, and in the private practice of law for several years before he entered Forest Service, where he remained until he became attached to the Office of the Solicitor in 1910. Mr. Dechant will devote his time to the operation of his walnut ranch in Lake County, Calif. He is identified with much of the litigation which established the basic principles upon which the national forests and other public lands are being managed.

Rutin in Capillary Fragility is an editorial note in the British Medical Journal for May 31, which reviews rutin from the time in 1936 when Szent-Györgyi prepared his citrin from lemons and paprika. Citrin seemed to restore normal capillary fragility in guinea pigs, but the active compound in it, called vitamin P by some, was never isolated. The note tells of clinical tests made on rutin from buckwheat in this country and winds up: "It is worth noting that the rutin used by Shanno (in the U. S.) was prepared by the East (sic) Regional Research Laboratory of the United States Department of Agriculture by alcoholic percolation of buckwheat; it was not prepared by a commercial firm. Rutin has been given daily for as long as 16 months without producing harmful effects."

Wasteful America: In the United States forests 188,500,000 tons of wood are cut annually for lumber, pulp, and paper, and other commercial products. *Of that, 57 percent is wasted or burned for fuel—108,900,000 tons.* Yet national demands are not met nor can our forests, in their present condition, long sustain this terrific drain. Part of this enormous waste can and should be converted into products required to satisfy human needs. For more details, procure Wood Waste in the United States, issued by Forest Service, June 26.

Wanna grow four-leaf clovers and be lucky all the time? Where one four-leaf clover is found, others grow nearby, because clover spreads by throwing out creeping stems which root at the nodes—joints of stems to us ordinary people. But the plants complicate things by varying their leaflet numbers from three clear up to seven, at times, yet if you plant cuttings from a clover with many groups of four leaves you can grow a much more than usual number of lucky leaves in your patch. Cut pieces with at least two nodes—'er, joints that is—and plant in fertile, well-drained, moist soil. Do you want to go to all that trouble to be lucky? Our scientists have not so far produced lines of extra-leaflet clover from seed. Indeed what we have just said is about all they will say on the subject.

Willard ("Doc") Lamphere has left the Department to become Assistant Director, Department of Agricultural and Mineral Development, Great Northern Railway Co., with headquarters at St. Paul. Mr. Lamphere came to Washington in March 1939 to serve as Assistant Chief, Regional Contact Section, Division of Information, AAA. He has since served as Chief, Regional Contact Section, Division of Information, AAA, and lastly, Assistant Director, Information Service, Production and Marketing Administration, in charge of informational work for Field Service Branch and Federal crop insurance. He reported for his new duties in St. Paul, July 1.

Farm accidents: One person was injured during the last quarter of 1946, for every 28 farms included in a sample survey made in January 1947 by the Bureau of Agricultural Economics. The survey included about 15,000 farms in 314 counties. The figures thus obtained are the most complete yet available on farm accidents. If the farms included in the survey were typical of the entire country, the results would indicate that from October through December there were roughly 210,000 accidents that injured people living or working on farms; that the injuries cost a total of $8,750,000 for medical, dental, and hospital expenses; and that the time lost from usual activities total 4½ million days.

International Cereal Conference: The Secretary, his executive assistant, Nathan Koenig, Jesse Gilmer, Administrator, and Ralph Trigg, Deputy Administrator, Production and Marketing Administration, among others, attended this Paris conference.

Farm clothing bill: Last year farmers spent an average of $270 each on clothing for themselves and families, twice that spent in 1941, the total bill running 1.6 billion dollars, and farmers spending 1 out of every 10 dollars spent for clothing in the United States. Clothing expenses account for about 17 percent of total farm living costs, and many articles of clothing now cost twice what they did before the war. It also seems likely that farmers will spend even more for clothing in 1947 than they did in 1946.

Gene jugglers: A fastinating account of how the scientists separated the genetic factors in cantaloup breeding material and then put them together in precisely the way to promote maximum resistance to powdery mildew, will be found in press release No. 1472. Get it from Press Service (phone Ext. 6114 or write in) to discover researchers fighting a running battle to control cantaloup diseases.

Careless destroyers: A report issued by Forest Service July 1 showed a 40 percent jump in the number of man-caused forest fires last year, due in part to the fact that the Nation's forests had many more visitors in 1946 than during the war years. Details and statistics on forest fires will be found in release No. 1445, available from Press Service by phone (Ext. 6114) or mail.

Dallas Burch, in person, reports that: The foot-and-mouth disease war in Mexico has brought the enemy under apparent control, though it will take at least 2 years to complete operations, and even then some mopping up may follow. Relations are excellent between the Americans and the Mexicans, who cooperate in most friendly manner. In one locality four fighting bull-ring bulls that had to be slaughtered caused an incident by refusing to march into the grave prepared for them; instead they charged the slaughterers and put them to temporary rout. While United States contributions in money will top Mexico's from now on, Mexico is liberal with labor and soldiers and thus contributes heavily to the campaign, in kind. It looks now as if the fight will be surely won and even better Mexican-United States relations cemented thereby.

University of Massachusetts: That's what Massachusetts State College became in May, its third change in name since it was founded, in 1863. It has a 700-acre campus in Amherst and a 3-million-dollar building program in progress.

The Chemical Study of Penicillin, the first chapter of a monograph on the chemistry of penicillin, to be published soon by Princeton University Press, appeared in Science for June 27. The volume is being prepared under supervision of the National Academy of Sciences and the Office of Scientific Research and Development.

FAO publications: The Department of State has issued a bulletin containing the Report of the United States Delegation to the Preparatory Commission on World Food Proposals, April 1947, and Proposals for the Amendment of the Constitution of the Food and Agriculture Organization of the United Nations. Procure for 10 cents in cash by addressing the Superintendent of Documents, Government Printing Office.

Another new wheat grows from one kernel in 1931 to 1,800 bushels: This is Marfed wheat, a cross of a Marquis and Florence hybrid with Federation, made at the USDA nursery in Pullman, Wash., by O. A. Vogel, in 1931. It is highly resistant to 13 of the 25 races of smut, somewhat resistant to powdery mildew, mills and bakes about like Federation, but yields better, and shares Federation's resistance to lodging. Thus another new wheat is created.

John Baker, former chief of USDA's Radio Service, is now program director for WLS in Chicago.

Strike Prohibition: Civil Service Commission calls attention to the fact that the Labor-Management Act of 1947 forbids striking by Federal Government employees. See Sec. 305 thereof.

The School Comes to the Farmer, autobiography of T. M. Campbell, veteran extension field agent, will be published in England next fall, according to the publishers, Longmans, Green & Co., London.

Ecology and engineering: Paul B. Sears, of Oberlin; argues in Science for July 4 that engineers, agricultural engineers included, need better education in biological science. Their work in highway construction, with its direct effects on soil moisture and erosion, in stream sanitation and control, makes this a necessity. See his article, Importance of Ecology in the Training of Engineers, for details.

IPC and quackgrass: John W. Mitchell and Paul C. Marth, of the Bureau of Plant Industry, Soils, and Agricultural Engineering, have a technical report in Science for July 4 entitled "Sensitivity of Grasses and Some Crop Plants to Isopropyl-N-Phenyl-Carbamate."

Nick McGuffin's hog machine: Nick is the fellow who worked out the ingredients required to make a hog ready for market, invented a machine in which to compound them, and produced hogs faster than anybody in the country. If you feel that a little humorous slant on the situation would help, you might like to read about him in Robert H. Blackburn's story, Recipe for Pork, Atlantic Monthly for July.

George R. Dickie has been named to succeed Walter L. Scott as secretary of the Federal Inter-Agency Committee on Recreation; announcement was made July 7 by Director M. L. Wilson of Extension Service, present chairman of the committee. Mr Dickie will be employed by the National Recreation Association and his services made available to the Inter-Agency Committee, which is composed of representatives of Extension and Forest Services, USDA; National Park and Fish and Wildlife Services, Interior; Office of Education and Children's Bureau, Federal Security Agency; and Corps of Engineers, War Department.

"The Magic Porridge Mill" is the title of an article on the farm technological revolution in the United States, to be found in the Antioch Review (published at Yellow Springs, Ohio), summer, 1947, issue. The editor of USDA has a few reprints that he could be persuaded to part with sparingly or see the magazine in the Library.

Gratitude: A reader writes: "One day way back in the 1920's a Negro charwoman on my floor wanted to change from night to day work. This required a letter to her superiors and that she was afraid to write because she felt it must be a very superior document. As I regularly came early to work she finally appealed to me shyly to formulate and typewrite her letter. This I gladly did. Moreover she got the day work. Twenty years have passed, but she never fails to speak to me every time I come within half a corridor length of her; often her voice booms to me quite unexpectedly; often she is animatedly telling others within earshot that that's the gentleman who wrote her the letter that got her day work. You can see her industriously at work in the fifth wing, sixth floor, South Building, about every morning at 8 a. m. Never was so much sustained gratitude so freely and joyfully offered for so little service."

Original sources: When the writer used the expression "Two Blades of Grass" as title for a history of USDA scientific achievements, and remarked that Isaac Newton, first Commissioner of Agriculture, had used the phrase in quotes in his first annual report, he assumed everyone knew the original source of the words. But apparently few are today educated in Gulliver's Travels, wherein the King of the Brobdingnags, the "big people," said that "whoever could make two ears of corn, or two blades of grass, to grow upon a spot of ground, where only one grew before, would deserve better of mankind, and do more essential service to his country than the whole race of politicians put together." The "big people" who did that in modern times were our skilled and patient workers in agricultural research. In Brobdingnag the wheat grew 40 feet tall!

What It's Like to Work for Uncle Sam: You may not need to read this article by Jerry Kluttz, of the Washington Post, in Nation's Business for July, because experience may have informed you plenty. But like as not there are some aspects of the Federal Government jobs that have not occurred to you and Jerry covers the subject completely and readably.

Nomination confirmed: The Senate, on July 8, unanimously confirmed without debate the nomination of Marvin Jones, former War Food Administrator, judge, and Member of the House of Representatives, to be Chief Justice of the Court of Claims.

Celery mosaic: This disease can now be prevented, not by treating the patient, but by giving an associated plant, the wild dayflower, a good dose of 2,4–D, a medicine that would be fatal to celery anyway. The mosaic virus lives on the day-flower, a common weed in the Florida mucklands where celery is an important crop, and is transferred to celery by obliging aphids. The celery crop is maintained in health by spraying the weed with 2,4–D.

Dr. E. A. Back has retired: He is a well-known authority on control of insect pests of the household and of stored products, who served USDA for 28 years, except for a 1½-year period in 1910–12, when he was Virginia State Entomologist and Entomologist of the Virginia Agricultural Experiment Station. A native of Northampton, Mass., Dr. Back was educated at what is now the University of Massachusetts, and did his first work investigating the white fly on Florida citrus. On August 1 he left for London where, with Dr. R. T. Cotton, in charge of EPQ s Manhattan, Kans., laboratory, he represented the Department at the international conference of specialists on infestations of stored products, sponsored by FAO.

The Road Ahead for Cotton is the title of an address delivered in Texas, July 16, by Assistant to the Secretary E. D. White. Procure copies by writing, or phoning (Ext. 6114) Press Service; ask for No. 1538.

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USDA

FOR AUGUST 18, 1947

Secretary speaks

AT 3 P. M. on July 17 Secretary Anderson, but recently returned from Europe, and the cereals conference in Paris, addressed his associates in the Department regarding his findings there. On the platform were those who accompanied him—Administrator Gilmer and Deputy Administrator Trigg, of Production and Marketing Administration, Colonel Harrison and Nathan Koenig, of the Secretary's staff, as well as Under Secretary Dodd, Assistant Secretary Brannan, and Stanley Andrews, Assistant to the PMA Administrator for International Food Supply Programs.

Europe's primary need is to work out her own means of self-subsistence. However, the war left her on dead center. Innumerable interlocking factors lost their customary integration and normal production became impossible. Moreover, to start production in a particular sector of the economy you may need to assist another sector that is seemingly remote and irrelevant.

More food production is imperative, for sufficient grain simply cannot be taken from the economies of surplus nations fully to supply relief needs as formulated. Even if it could be taken, transportation is lacking to get it where it is needed. And if there were enough transportation, importing countries could not produce enough dollars to increase imports. Coal production in the Ruhr is directly and immediately dependent upon the quantity of food available for miners. Moreover, if farmers are to get better machinery and food is to be transported where needed, the miners must have more food, to mine more coal, to make more steel to prooduce these end results.

One decision for Germany was to start there, to increase the miner's food. That will help get many activities off dead center. It will have wide repercussions throughout the U. S.-U. K. zones of Germany. A thousand problems of this sort stare the investigator in the face on every side, many of which cannot be solved till other problems, seemingly disconnected, are solved.

Japan

JAPAN is a land literally swarming with people, who work desperately hard merely to subsist. Things are tough all over and it will be a long time before they are anything else, for the way of the transgressor is still hard. Eighty million Japanese cling to a group of small islands with a total land area about that of California, 5 million of them already newly repatriated from Manchuria, China, Korea, and places afar in Japan's former widespread dominions.

Agriculture is primitive, holdings are small, averaging 2½ acres; fields are tiny and scattered intricately among one another, regardless of ownership. The owners themselves live in villages, usually on less arable land, holding small plots here and there scattered over a considerable locality. Many of the repatriates are shoved up into the hills where their farms are rather more perpendicular than horizontal. Every possible square foot is cultivated, even in urban public squares and railroad rights-of-way.

The people are fed tolerably well; they are not starving, but they lack all luxuries. They all work terribly hard, running fast merely to remain in the same place or to keep from slipping lower. However, they are polite to the occupation forces and seem to cherish no resentment; they also appear eager to learn "how they do it in the United States"—whatever it is, they seem to believe it is done better here.

A visit to Japan is best calculated to make an American extraordinarily happy to be a United States citizen. If he goes to advise about agricultural information and extension work he finds much room for improvement, for the Japanese have much to do in such things, though they want to learn the American way in them. The nation's principal product is more people; they materialize out of thin air even in the remoter countryside, and they have their work cut out for them for many years to come.

(Random mental notes taken during an informal talk by Associate Director of Information R. L. Webster immediately after his return from 2 months in Japan.)

Brucellosis

IT IS wrong to regard brucellosis as a rare, regressive, self-limited disease. It will continue to occur so long as infected food is eaten or humans make contact with infected cattle, goats, swine, sheep, or horses. The State of Iowa reported 638 cases in 1946, in which three-quarters of the histories secured showed direct contact of the patient with hogs or cows before onset of the disease. Cases reported yearly average 4,000 for the United States, yet only the severe, acute illnesses are diagnosed and reported. Probably from 40,000 to 100,000 infections actually occur annually.

Mortality is usually low. Cross infection seems to be increasing. The annual loss in milk, butter, beef, veal, and pork attains a staggering calorie and high-protein total in a world short of food. A recent study in Michigan indicated that the average infected cow produces about 2,065 less pounds of milk per lactation period than a noninfected animal. Extend that estimate to the State as a whole and the total loss would be sufficient to supply 557,000 persons yearly; the lost butter would supply 655,300 for a year. In addition, the disease causes a loss in this State of about 1,299,200 pounds of veal and 6,494,000 of beef annually.

Chronic cases of brucellosis in human beings are difficult to diagnose, for it, like tuberculosis and syphilis, appears in protean disguises, simulating many other conditions, psychoneurosis among them. Certain signs and uniformly reliable diagnostic procedure are still lacking. A defeatist attitude prevails toward treatment. Development of improved diagnostic methods waits in part upon increasing "brucellosis mindedness," but "pasteurization of all dairy products remains the greatest bulwark against human infection until better methods of control can be perfected."

(Facts from editorial on Brucellosis, Journal of the American Medical Association, July 5.)

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SEND US ITEMS

Field employees especially are requested to send appropriate items for use in *USDA*. Fund shortages have for some time made editorial field trips impossible, except at the editor's expense, and then he ran out of funds, too. But he is always delighted to hear from USDA workers in the field and to get items that can be used in *USDA*. You can tell the sort of thing we use by reading the house organ regularly. You can be reassured about clearance, as we do this with your information people in Washington. Brief items, short articles (1 page typed double space is the limit), and processed or printed material in which other employees might be interested are always gratefully received.

Forest echoes

THEY are using mine detectors now to spot metal in sawlogs, down in a Mississippi sawmill, following tests and demonstrations by Forest Service's Southern Forest Experiment Station. The mill mostly cuts logs from worked-out naval stores timber, and visual inspection doesn't detect completely embedded metal. Each time the saw strikes metal, time is lost, but the mine detectors either flash warnings on a dial or give with an unpleasant hum on earphones, to indicate the presence of metal. Savings from increased output and averted damage to saws at this one mill are estimated at $5,000 to $6,000 a year.

Another item from the same experiment station indicates that the piney woods hogs, one of young longleaf pine's worst enemies, eat the roots of these saplings as a spring tonic, or to kill kidney worms, or maybe because they want a square meal. A hog can destroy 400 young pines in a single day, and that isn't hay; he can uproot and feed on longleaf seedlings at the "grass stage" at a rate of 6 per minute. Unlike cows, hogs can't efficiently convert fibrous roughage into body tissue; they prefer to get their carbohydrates from concentrates low in fiber, like corn.

The part of the root that the hogs eat runs 85 percent starch and is low in fiber. The roots make a nice substitute for corn, for woods hogs which seldom see grain, and adeptly turn to longleaf roots after the oak mast is gone. As fresh longleaf root is about half water, a 150-pound hog has to eat about 8 pounds of it (90 linear feet) daily to keep in trim, and it can do this in 2 hours. The hogs like the part of the root that is low in gums and resins, but it makes mighty expensive hog food.

(For details regarding any of the above, write the experiment station at 1008 Federal Office Bldg., New Orleans, La.)

"The Lean Years"

THE following facts emerge from a leading article in the Economist (London) of June 28. Everyone expected the war to dislocate agriculture, but many thought it would improve soon after the war ended. That food production did not quickly rise to meet demand is only too unhappily apparent. That occurred, in part, because the world's population increased by from 3 to 5 percent during the war years and, in part, because prosperity has enabled many countries, like the United States, to maintain a higher dietetic standard than ever before. Hence, whereas world food production is still below that of prewar years, not even a 5-percent increase over prewar years would fill existing demand.

Furthermore the nations of the world help one another more than they formerly did. Those with grain surpluses contribute to those threatened with famine. Moreover, they do not always cut their own high consumption of food to help others, but maintain it anyway. A higher standard of living is the all-around objective and it means larger consumption of food per head. Many countries pay far more attention to raising scientific standards of nutrition among their own people than they ever did before, and that means more food. The world's livestock position is aggravated by feed shortages; much pasture was plowed up to produce bread grains, meaning a world loss of corn and oats. Feed concentrates depend largely on oilseeds, and the world output of them is but three-quarters of the 1935–39 average.

There has been a world dearth of fertilizer, a shortage of fuel and transportation, and in many places the short supply of agricultural machinery is a severe limitation to production. "If the world remains inflated and fully employed, it will continue to have food rationing in all but a few fortunate countries, and high prices for food there." The current assumption that the individual demand for food is now permanently and irreversibly high may not be well founded. At any rate, from 1949 onwards, the world's grain position should steadily improve.

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What to do with whey

There is available from the Bureau of Dairy Industry a 4-page processed publication by B. H. Webb and E. O. Whittier, on The Utilization of Whey. It is heavy on bibliography and astounding in its revelation of whey's extreme versatility. It mentions whey soups, whey drinks, whey candy, dried, plain condensed, and sweetened condensed whey, and then really goes to town on a variety of products that can be made from whey or its by-product, lactose. Ask for BDIM–Inf–49, June 1947.

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"I need a good wife"

THAT'S what an attractive girl worker in the Department told the editor today, "What I need is a good wife." Asked to explain this rather startling statement, she went on:

"You married men don't know what it is to work hard. You have a valet at home who devotes her entire time to turning you out spick-and-span, so all you have to do is go to work. We single women have to be our own valets, cook our meals, wash our clothes, clean our apartments or homes, after we have done a day's work down here and when you go home to your valet to rest. Lots of us are married, too, and, instead of having it easier, we have merely doubled our responsibilities and in our out-of-hours time have to keep a home for a husband also.

"What's more, I think that the girls consistently come to work looking fresher, cleaner, and neater than you men with all of your advantages—on the average. Lots of you come down towsled, in soiled shirts and unpressed clothes, and sit moodily with your feet on the desk half the time. I hope it's only the single men who do that, and it's even a minority of them. But it just goes to show, even if single, you can't on the average do as good a job of grooming yourself, cooking your meals, and cleaning your house as we women. Furthermore we really work hard and do the job and we deserve double credit.

"For we don't have a trained valet at home. As I said before, what I need is a good wife."

Speak up, girls, What do YOU say?

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The quest for security

The desire is an old and a natural one for human beings, yet complete security is inevitably unattainable. You may spend your life saving and accumulating an annuity or the seniority which spells retirement on sufficient to live upon, and then have the whole thing suddenly go smash and turn to ashes before you. Many a man has committed suicide not because all was lost, but because the particular plans he made could not be achieved. Misfortune or disaster intervened. Many others make the grade, live to enjoy the savings or the annuity, but there are a multitude of slips betwixt cup and lip. Possibly it would be better if human beings renounced their unadulterated faith in the ability of any plan surely to provide them with complete security, and realized once and for all that the plans of mice and men go oft awry, and that that's the rule; the others are exceptions.

National Forest returns

These totaled $18,372,799 for the fiscal year ended June 30, 1947, surpassing all previous peak annual earnings.

Brief but important

Presidential succession

Under the Presidential succession law of 1886 the Secretary of Agriculture, along with the Secretaries of Commerce and of Labor, could under no circumstances assume the office of Chief Executive. These three departments had not been created in 1886. Under the new law the Speaker of the House and the President protempore of the Senate would succeed, before the Secretary of State, the present immediate successor, should the President die, resign, be removed from office or be unable to qualify, that is, provided there were no Vice President. Furthermore, the Secretaries of Agriculture, Commerce, and Labor are added to the order of succession. You might say their chances were very remote but, before doing so, you should reflect upon the atomic age in which we live.

Democracy

If you want to undertake some really rewarding summer reading you could hardly do better than to select The Web of Government, by Robert M. MacIver, Lieber professor of political philosophy and sociology at Columbia, published by Macmillan. Despite what you may think you know about democracy, you will learn more or will find yourself seeing familiar concepts from a novel viewpoint. You will be forced to conclude that democracy is the most advanced and progressive form of government extant and that modern dictatorships, of whatever kind, represent reactionary resurgences of a past era. The differentiation made between democracy, oligarchy, monarchy, and dictatorship is sound and stimulating. Nor is the book difficult reading. It is solid. You cannot skim it and get the substance. But its Scottish-born author writes clearly and interestingly.

Timber beast Bob Salton

That's what the man (in Region 3, Forest Service) said, "timber beast." Bob Salton, who had chalked up 32 years of exemplary service, retired for disability, at his own request, May 19. He was forest guard and later deputy forest supervisor at many places in the Southwest, had a 2-year detail with the Army forestry engineers (1917), and also, much later, with the New England Timber Salvage Administration after the big hurricane. He was an inveterate collector of insect specimens and exchanged with leading entomologists, and, above all, was a top field inspector.

Smoke jumpers

On June 4 two Forest Service smoke jumpers dropped by parachute to attack a fire on Reed's Peak, high in the Black Range about 18 miles northwest of Kingston, N. Mex. Flying from their base in Deming Municipal Airport they reached the blaze in an hour and 12 minutes, and held it to a small area. Imagine what might have happened with only packhorse and foot-travel, given the up-and-down ruggedness of the Gila country.

Foot-and-mouth disease

Full, active support for the foot-and-mouth disease eradication efforts now being made by Mexican and United States authorities in infected areas of central Mexico was pledged recently by a new organization representing all cattle interests of the northern Mexican States which are still free from the virus. Get No. 1587 from Press Service, by mail, or phone Ext. 6114, for details.

Cheer up, Doc, it might have been worse!

Bureau of Animal Industry lays claim to a record two-in-one accident and right on the front porch of Accident Prevention Week at that. The man in the case was Andrew S. Deming, of the Bureau's Tuberculosis Eradication Division. The scene was at the Deming home (not a farm) in Washington, D. C. The accident itself would have passed unmentioned (except for a few lame explanations) but for the unusual fact that Andy, when falling down the cellar steps, broke his glasses (those he was wearing) and landed on his left hip, thus breaking a spare of specs which he keeps for an ordinary emergency. Andy will supply details cheerfully on how to do this sort of thing to anyone sending a self-addressed, stamped envelope.

"Jack" (John A.) Ferrall

USDA's most faithful and best contributor is now at 5026 Floristan Avenue, Eagle Rock, Los Angeles 41, where, for 6 weeks, he just sat on the porch, at the end of which time he began to rock—slowly. He thinks Gen. Brehon Somervell had the right idea on how to spend retirement and he hasn't even unpacked his 700 books yet. He raves about the climate there and implies that what we have in Washington, D. C., is weather, and a low grade of it at that. He boasts about walking about 3 hours at midday, wearing his coat (he didn't say overcoat) without working up a sweat. He finds doing absolutely nothing an absorbing and fascinating occupation.

Alaska Experiment Station Head

Appointment of Don L. Irwin as Director of the Alaska Agricultural Experiment Station was announced August 7. Trained at Kansas State and University of Minnesota, specializing in agriculture, he has had many years' experience in Alaska.

Columbus found the American Indians smoking cigarettes

He did; it was tobacco wrapped in the leaves of maize or Indian corn. If interested in The Cigarette in the United States, a documented history, see Eugene O. Porter's article of that title in June Southwestern Social Science Quarterly, which issues from 304 West Fifteenth, Austin, Tex. Library gets it.

Robert L. Farrington

The former associate solicitor in charge of Farm Credit, became Deputy Governor of FCA July 14. He succeeded James E. Wells, who became Cooperative Bank Commissioner of FCA. Mr. Farrington, a native of Texas, has several degrees including a B. S. in economics from American University, and an S. J. D. from Catholic University of America. Except for 6 years in the private practice of law in Oklahoma, he has been with the Federal Farm Loan Board and various divisions of Farm Credit Administration until 1941, when he transferred to the Office of the Solicitor.

Part of marketing research from BAE to PMA

Secretary's Memorandum No. 1198, July 11, announced the transfer—effective date to be determined by heads of the agencies concerned—of the marketing research activities in the fields of technical improvement of market facilities, transportation methods, packing and packaging, and wholesale and retail market practices from Bureau of Agricultural Economics to Production and Marketing Administration. BAE remains USDA's principal agency for research on factors affecting prices, consumption, demand, and general outlook for farm products, and for work in the general field of marketing and transportation economics. See the memo for details. Procure from Secretary's Records Section, Plant and Operations; write, or phone Ext. 3337.

Methionine in human nutrition

The Journal of the American Medical Association for July 12 commented editorially on recent work which indicated that animals had a greater need for the sulfur-bearing amino acids, methionine and cystine, than do human beings, both for maintenance and for growth. This may be because animals are covered with hair which is a protein rich in cystine. The work, if confirmed, has an important bearing on milk proteins as human food, and would incline to the view that casein is not inferior to lactalbumin for this purpose, because of its lower content of the sulfur-containing amino acids, as has long been held.

The Corn Outlook and Its Effects on World Food Needs

This speech delivered in Chicago July 21, by Under Secretary Dodd, provides an informative and useful discussion of this subject. Procure it from Press Service by writing it, or by phoning Ext. 6114, if in Washington. Ask for No. 1612.

Farm worker health

Not long ago the manager of the 22,000-acre Braswell Farms, Nash and Edgecombe Counties, N. C., arranged with the health officers of these counties to make complete physical examinations of the 900 persons in the 140 families employed. This included chest X-rays provided through the State Department of Health's mobile X-ray unit, blood samples analyzed in the State laboratories, dental inspections, and vaccination check-up on children under 6.

Progress for Mexico

Quantities of harness and modern steel plows, to replace ancient wooden ones, are being distributed to Mexican farmers during the foot-and-mouth war; possibly the agricultural industry of our southern neighbor will be revolutionized as the result of what initially appeared to be catastrophe. Farmers use their indemnity payment money towards the purchase of new equipment, though this is usually inadequate and the Government of Mexico absorbs the difference.

Those apples you had as a boy

According to USDA horticulturist J. R. Magness, the apples of today are superior in flavor, appearance, and size to those grandpa grew. Then the value of an apple variety depended on how well it kept when stored in the cellar for winter use; the development of cold storage and the competitive citrus-fruit industry made growers select varieties of good eating quality. Apple growing became an intensive, specialized industry. A third of the crop is now processed—canned, frozen, dried, made into apple butter, juice, bland sirup, as compared with the old days when mostly culls were dried or used for making vinegar, and not many of them. But apples are better now than they were at the turn of the century, believe it or not!

Clyde House retires

"According to Clyde F. House, market news analyst for the United States Department of Agriculture," was a familiar phrase in the New York City press during the hectic ups and downs of meat supplies and prices the last few years. At times, House was quoted almost as frequently as the mayor. But the phrase will be seen no more. After 35 years of service in the Federal Government, Clyde House closed his typewriter at the end of June and retired to spend a year or two visiting around the country before he settles down. In his long career with USDA he was a meat grader, a meat inspector, and for the last 16 years a reporter on meat trading in the New York and Jersey City markets.

Robert Coghill cited

A distinguished service citation was conferred on Robert D. Coghill, by the University of Kansas, in recognition of his public service in conducting research that made possible mass production of penicillin. Dr. Coghill was formerly in charge of the Fermentation Division, Northern Regional Research Laboratory, and is now director of research for Abbott Laboratories, North Chicago.

Farm Research

This quarterly bulletin from the New York State Agricultural Experiment Station, at Geneva, and Cornell University Agricultural Experiment Station, at Ithaca, is bright, informative, and readably written. Address correspondence to editor William B. Ward (Bill Ward, you remember) at Ithaca.

Agricultural Outlook Digest

USDA has one new leaflet, a monthly 2-page summary of the contents of several regular Bureau of Agricultural Economics situation reports, called Agricultural Outlook Digest. It is designed mainly for those who like a more condensed statement instead of the detailed reports and summaries found in other such periodical reports. It is released each month on the same date as the Demand and Price Situation; it is available from BAE.

A. P. Spencer

The veteran Florida Director of Extension, retired July 1.

Contributions to 4–H Clubs

They were ruled deductible for Federal income tax purposes by the Bureau of Internal Revenue, April 24, the clubs no longer being required to supply proof of exemption, by a letter dated June 16.

Says June–July Marketing and Transportation Situation

"The farmer's share of the consumer's dollar spent for farm food products declined sharply from the all-time record high of 56 cents in March to 54 cents in April and 52 cents in May 1947. The decline resulted from a fall in prices received by farmers for food products but little change in retail prices paid by consumers. While the farmer's share was declining, marketing charges increased from 44 percent of retail food cost in March to 48 percent in May. Total charges for marketing a family 'market basket' of farm food products rose from an annual rate of $280 in March to $293 in April and $299 in May, or nearly 7 percent. This is $98, or nearly 50 percent, higher than marketing charges of $201 in 1935–39." The "market basket" contains quantities of farm food products equal to 1935–39 average annual purchases per family of three average consumers; see Miscellaneous Publication No. 576 for details.

Minor revisions of documents

USDA Document No. 1, Origin, Structure, and Functions of the United States Department of Agriculture, has been revised as of July 1, to bring current the accounts of Production and Marketing Administration and Federal Crop Insurance Corporation; *order new copies only if interested in these changes.* *USDA* Document No. 3, Biographies of Persons in Charge of Federal Agricultural Work, 1836 to Date, also was very slightly revised after the death of former Secretary Howard M. Gore. If interested in information about the USDA, ask for new document list. Address T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

H. B. McClure

This veteran employee of Motion Picture Service, who retired in 1945, died in Washington July 15. Originally in USDA hay standardization and marketing work, he later entered Motion Picture Service, became film librarian, and had his name conferred on the library upon retirement.

Consumers' Guide

This monthly periodical of the USDA discontinued publication with the July issue.

Technical and Scientific Publication in Europe

This subject is reviewed in two articles in Science for July 18. The articles cover both books and periodicals.

Aerosol penicillin

Penicillin can be gotten into the blood by the inhalation of aerosols, using a combined steam generator and aerosolizer with penicillin in propylene glycol solution. For details see an article on page 932 ff., the Journal of the American Medical Association, July 12. The same issue of the same journal contains on page 953 ff. an account of a man who contracted swine erysipelas and was treated with 600,000 units of penicillin which rapidly cleared up the lesions.

Milk and intelligence

A generation or so ago some people seriously believed fish was superior brain food because both fish and brain were high in phosphorus. This belief proved to be a fallacy. Recently, however, qualified investigators have shown that glutamic acid supplements—glutamic being one of the two dozen or so amino acids which make up proteins—would raise the I. Q. of mentally retarded children and youths and tend to suppress convulsions in those afflicted with epilepsy. Since milk contains considerable glutamic acid, we may possibly soon hear parents saying to their children, "Drink your milk now, I don't want you to grow up to be a moron." Fortunately those who find milk unpalatable or gastrically offensive can get their glutamic acid rather easily in other foods.

Designs for Better Market Places

This article by W. M. Hurst, senior agricultural engineer, Bureau of Plant Industry, Soils, and Agricultural Engineering, appears in July 1947 News for Farmer Cooperatives, a monthly periodical issued by the Farm Credit Administration ($1 a year), to which we direct your attention.

K. A. Brasfield

Brasfield has been appointed director of the Fiscal Branch, Production and Marketing Administration, of which he has been serving as associate director. He succeeds H. F. Shambarger, who asked to be assigned to general staff work and entered the Office of the Administrator. Except for his World War II service, Brasfield has been engaged in accounting and fiscal administration since 1931. He is a graduate in business administration of Washington University, and a certified public accountant, and was for several years with Farm Credit Administration, of which he became comptroller 1938–45. He was also assistant treasurer of Commodity Credit Corporation.

Lumber from Coos Bay

So the Economist (London) for July 5 heads a brief from its Oregon correspondent. The British Timber Control has placed orders for 175 million board feet of lumber and 75 million feet of ties, to come from Coos County, 89 percent of which is classed as timber land. There are 35 sawmills in the 910,825-acre county where 20 billion feet of timber, mostly Douglas firs, still stand. From Coos also comes Port Oxford cedar, actually a cypress, containing a fragrant oil which enables it to resist decay, straight grained, and of high tensile strength. Some of the current stands of trees here are on a sustained-yield basis to provide lumber permanently. If all the county's area were properly handled, the annual increase would be more than equal recent annual cuttings.

Queen bees may be barred

To prevent the introduction of a fatal bee disease, consideration is being given to revocation of the regulation under which the USDA, acting in behalf of public institutions and commercial queen breeders, imports queen bees for experimental and scientific purposes. If interested in more detail, procure No. 1579 from Press Service by mail or phone Ext. 6114.

If parity puzzles you

Read How Parity for Farmers is Measured, by Wayne Dexter, in July 1947 Agricultural Situation, issued by the Bureau of Agricultural Economics.

Charles H. Corlett

Corlett has been appointed a consultant of the Secretary in connection with United States cooperation in the foot-and-mouth disease eradication campaign now being undertaken in Mexico.

$2,000,000 up in smoke

That is the cost of the 4,474 forest fires in national forests, and adjacent lands the Forest Service protects, during the first 6 months of 1947, and *all were man-caused except* the 519 caused by celestial artillery in the form of lightning. The flames burned 95,000 of the 229,000,000 areas involved. But FS smoke jumpers, airplane patrols, and ground forces held the acreage burned to the lowest figure in any first half-year since before the war. More than half the fires occurred in the 11 Southern States.

The Fertilizer Outlook

This address was delivered at Clemson College by Assistant to the Secretary W. A. Minor, on July 15. If interested in the subject, read it for facts and for policy. It is too crammed with information for us to run an adequate abstract; get it by writing Press Service, or, if in Washington, phoning Ext. 6114; ask for it by title.

New national agricultural chairman for the Junior Chamber of Commerce

He is 28-year-old John S. Kuykendall, Jr., county supervisor for the Farmers Home Administration at Brownwood, Tex., the last 4 years. Kuykendall's appointment, during the recent Jaycee Convention in Long Beach, Calif., climaxes his long activity in the organization's farm program. He headed the local Jaycee committee which started the successful Brownwood Livestock Show and is now serving his second year as Texas agricultural chairman of the organization. Kuykendall entered USDA with the old FSA at Burnet, Tex., in 1940.

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USDA

FOR SEPTEMBER 1, 1947

Service Award Boards

THE EMPLOYEE awards program has been mentioned earlier herein—*USDA* March 31–April 14, 1947. The membership of the Board of Distinguished Service Awards is composed of former Representative Robert Ramspeck, chairman; former Chief of the Bureau of Agricultural and Industrial Chemistry O. E. May; the former editor of Prairie Farmer and author of the Farmer and the Rest of Us, Arthur Moore; Assistant Secretary Brannan; Special Assistant to the Chief of the Bureau of Plant Industry, Soils, and Agricultural Engineering, P. V. Cardon; and T. Roy Reid, Director of Personnel. The first three are all outside USDA. Mr. Ramspeck is Executive Vice President of the Air Transport Association of America; Dr. May is Director of Research for the Coca-Cola Co.; and Mr. Moore is with McGraw-Hill Publishing Co.

The Board of Superior Service Awards consists of Assistant to the Secretary E. J. Overby, chairman; O. V. Wells, Chief of the Bureau of Agricultural Economics; Louise Stanley, Special Assistant to the Agricultural Research Administrator; E. W. Loveridge, Assistant Chief of Forest Service; H. G. Clayton, the new Director of the Florida Agricultural Extension Service; Ralph W. Hollenberg, the California State Director for Farmers Home Administration; and T. Roy Reid, Director of Personnel. Alternates on this Board are: J. L. Wells, Assistant Director, Office of Budget and Finance; R. W. Trullinger, Assistant Administrator, ARA, and Chief of the Office of Experiment Stations; Myrtle Mohagen, Business Manager, Northern Regional Research Laboratory; Librarian Ralph Shaw; Associate Director of Information R. L. Webster; and Austin L. Patrick, Regional Conservator, Region 1, Soil Conservation Service.

Soft Corn

LATE SPRINGS, unseasonably low temperatures (averaging 3° or more below normal) and too much rain, inevitably spell soft corn. Soft corn contains too much water and, if it contains 30 percent of moisture—as it easily can—2,500 gallons of water have to be dried out of every thousand bushels of it to get it down to 13 percent, at which it will keep. You can't do that with a kitchen fan. Moreover, if the corn that has to be kept over till spring contains too much water, it will go bad rapidly as soon as it thaws after the final freeze.

A primary problem arises. Farmers in potential soft-corn areas must have sufficient dry corn to feed their livestock in the late spring and summer of 1948. Shortage of corn that could be stored satisfactorily in the warm months of next year could have a serious effect on the Nation's meat supply. It's a race against time to perfect driers and dry this corn. So E. A. Meyer and the Research and Marketing Act of 1946 hurried to the rescue. The first project to be financed under the act is research to develop portable corn-drying equipment practicable for farm or community use.

The agricultural engineers are confident that the problem can be solved in time to prevent spoilage of 200 million bushels of soft corn to be stored which, statistics say, will be bound to appear. Federal, State, and private forces will be mobilized into a research team to attack this problem. As soon as the engineers can draw up specifications based on the latest available knowledge of corn-drying processes, contracts will be let to manufacturers for the construction of several models to determine which are best by actual test. The money invested in this research should be returned to the public many times over.

Early chemical journal

In connection with forthcoming centenary celebrations of the British Chemical Society, the first volume of the proceedings of an older organization has opportunely been discovered. This is a well-bound folio of 452 pages in copperplate manuscript simply inscribed "Chemical Society instituted in the beginning of the year 1785." It has been identified as volume 1 of the Proceedings of the Chemical Society of the University of Edinburgh, and contains 22 communications and papers read at its meetings.

Most are routine descriptive chemistry of the classical period and Nature (London) tells us "an attempt by Mr. Thomas Beddoes, later director of the Pneumatic Institution and supervisor of Humphry Davy, to point out some of the consequences which flow from Mr. Cavendishes discovery of the component parts of water peters out, after an attractive start, into an addendum entitled 'a conjecture concerning the use of Manure.'"

An account of The Chemical Society and its centenary will be found in Nature for July 5.

Research Achievements

RESEARCH ACHIEVEMENT Sheets 77 (P) and 78 (P) are now available from Agricultural Research Administration. The first tells how research on improved potato storage assured two-way savings. The work was performed cooperatively by USDA and State workers in Maine, Michigan, Nebraska, Colorado, and North Dakota. For USDA the Division of Farm Buildings and Rural Housing, Bureau of Plant Industry, Soils, and Agricultural Engineering was the unit involved. A new method was developed for building potato-storage houses, the investigation costing about $20,000 and being worth about $60,000 *annually*, on the basis of 5 million bushels of potatoes now being stored in improved buildings.

The second of these sheets tells of the development of curly-top-resistant sugar beet varieties, by workers in PISAE's Division of Sugar Plant Investigations. Resistant varieties were bred and then used to make sugar beet growing once more profitable in districts where curly top had about wiped out the crop. The variety U. S. 1 was of primary importance and gave new hope to farmers and sugar companies alike. The investigation cost three quarter of a million dollars, but is worth *10 million dollars a year*, based on an average yield improvement of 4

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tons of sugar beets per acre on a quarter of a million acres subject to curly top, while the western sugar beet industry was saved from extinction in the bargain. It is not the woman, but research that pays, and keeps on paying, interest on the investment.

Administrator Meyer

E. A. MEYER was designated Administrator, Research and Marketing Act, by Secretary's Memorandum No. 1199, July 18. He became responsible for coordination, general oversight, and development of the marketing policies and activities of USDA, and for the integration of research, education, and production programs in their relation to market activities. He will also maintain relations with State and other agencies and institutions which cooperate in work under the act.

The Administrator was appointed Chairman of the Research and Marketing Advisory Group, consisting of the heads of Agricultural Research Administration, Office of Experiment Stations (ARA), Soil Conservation Service, Bureau of Agricultural Economics, Forest Service, Production and Marketing Administration, Farm Credit Administration, Office of Foreign Agricultural Relations, Extension Service, and Rural Electrification Administration. The executive committee of this group consists of the Administrator and the heads of ARA, PMA, BAE, and OES.

This memo supersedes No. 1182, December 27, 1946.

Fire Bombers

IN COLLEGE days it was a highly esteemed recreation to fill large paper bags full of water, then stand at the window of a third- or fourth-floor room and drop them delicately on faculty members or even on other students who excited your aversion. Who would imagine that Forest Service would think of somewhat the same method and put it to use extinguishing forest fires?

Not long ago (July 25) the Spokane Spokesman-Review recounted experiments during which members of the Army Air Force, working in cooperation with FS, dropped bombs loaded with water and equipped with proximity fuses in order to test the possibilities of slowing down fires until ground crews could reach them. Flying at tree-top level they made several passes over the fire without making a drop then, announcing a hot run, it was bombs away. Results were by no means perfect, but were good enough to stimulate further experimentation.

FS is right up to the minute in its forest fire-fighting. Its smoke jumpers chute down from moving planes to fight fires at close range. Sets of fire-fighting equipment are also parachuted down where most needed. Photographs of the fire are taken and developed in planes and also dropped to the fire-fighters below to guide them in their work. The water bombing took place in Lolo National Forest, 40 miles west of Missoula; Jack S. Barrows was project leader for FS.

PMA Now

PROGRAMS that require administering clear down to the individual farm will go from Production and Marketing Administration to the State and then to the farmer-elected county committees. These in general are the agricultural conservation program, production goals, and PMA's part of the farm-labor program, as well as programs under Commodity Credit Corporation authority concerned with price supports for individual commodities at the farm level. Over-all Assistant Administrator for Production is Dave Davidson.

Certain programs, formerly administered through State offices, will now be administered from Washington through five area offices of the Food Distribution Programs Branch. These deal with direct distribution of surplus foods, community canning, school lunches, and the like. Paul Stark is in charge.

The former program functions of the Field Service Branch are now carried out by the appropriate commodity branches. All Department programs authorized under the Marketing and Research Act of 1946 are administered through the office of E. A. Meyer, Administrator of Marketing under that act.

Secretary's Memorandum No. 1188, Supplement 1, August 8, established a Marketing Research Branch in Production and Marketing Administration and defined its functions. The Branch reports to the Assistant Administrator for Marketing. For details procure the memo from Secretary's Records.

Scientists! Researchers!

Do you find *USDA* of value? If so, precisely how? If you find it inadequate, we'd like to know about that too. It is quite a job attempting to put out this small fortnightly, aiming it at all employees in all kinds of jobs. But that's our objective. We'd like especially to hear what use scientific and research workers make of the house organ. Please address T. Swann Harding, Office of Information, USDA, Washington 25, D. C.

Ie-No-Hikari

DO YOU IMAGINE you'd like a little of that—with enough horseradish over it, of course? Or isn't it good to eat? Well, it happens to be the name of a Japanese farm periodical brought back from Nippon by Associate Director of Information R. L. Webster. It is published by the Light of Home Society. Its 52 pages measure 5½ by 8 inches each, newsprint with color on covers, 4 pages rotogravure, and it is the organ of the National Agricultural Association, Inc. It now has a circulation of about a quarter of a million, which grew from 25,000 copies in May 1925, when it began to appear, to 1,200,000 in 1935, and to 1,535,000 in 1943–44.

Ie-No-Hikari would today have a million and a half subscribers if it had the paper to serve them. It doesn't and that's why its quarter of a million copies are shared by its public until worn to shreds. We cannot read Japanese but we have authentic information that the pages, which turn from back to front, with vertical reading columns, contain material on the following subjects:

An editorial on pride and dignity; the new constitution, basis of democratic government; world currents; serial novel, Love; comment on Japan's present social state, in the form of a round-table discussion; prevention and care of children's indigestion; nutritious cooking using sesame; first steps in dressmaking; home science and electricity; contributor's column; illustrated items on land reform, artificial insemination of cattle, and preventing cattle diseases.

The staff would like material from the United States "Ministry of Agriculture." Subscription line forms on the right. It's not very different from our own farm journals—that is until you try to read it, and that takes more than your best specs.

Brief but important

This new sidehead type

It resulted from suggestions by various readers who felt that it would make it easier for them to sort out the BBI's they wanted to read, and it is certainly more readily legible than that italic we did use. Thanks for the suggestion. But other suggestions that we classify the BBI's into subject-matter categories must for the time remain unheeded. The current strict-economy method of getting out *USDA* simply leaves the large editorial force (the writer; weight 175 pounds) no time to do the classifying.

Farm living conditions improved

Families of United States farm operators, on the average, enjoyed a 25 percent better living in 1945 than in 1940.

No vaccine

The no-vaccine policy holds for animals in Mexico that suffer from foot-and-mouth disease, for vaccination would merely impede the disease-eradication program now in progress there. Where vaccination has been tried it has led neither to complete suppression nor to prevention of the ailment. Some vaccinated animals never became fully resistant, and the duration of immunity is but from 5 to 8 months. Procurement of wholly susceptible animals to use in producing and testing the vaccine is also a problem. Besides that it is always difficult to prevent the highly infective virus from escaping the laboratories and spreading the disease. Other more technical reasons for using no vaccine can be adduced. If interested, contact the information division of the Bureau of Animal Industry.

Charles Thom honored

We recently saw items from Madrid papers of May 9 last telling of and depicting the bestowal of a medal of honor upon Dr. Thom, retired USDA mycologist, by the Spanish Minister of Education, Ibáñez Martín. Dr. Thom looked quite like Dr. Thom—and in fine fettle too—despite his foreign surroundings.

End of industrial sugar rationing

Industrial sugar rationing ended rather abruptly at noon, July 28, because funds were lacking to continue the program. This eliminates all sugar rationing, though price controls are retained, and sugar inventory controls were instituted concurrently with the end of industrial rationing. For details procure No. 1686 from Press Service; *write in.*

Research Advisory Committee

The National Research Advisory Committee, established under the Research and Marketing Act of 1946, recently met in Washington with the Secretary and other USDA officials, and recommended that special stress be placed on marketing efficiency and the wider use of farm products, in the expenditure of the 9 million dollars Congress appropriated for 1947–48. It also recommended development of practical methods for marketing critical farm surpluses that may arise in years ahead. For details procure No. 1633 from Press Service, *by mail.*

If you follow futures

Two new statistical publications on futures trading were issued recently by the Commodity Exchange Authority. One tells the figure story of the futures markets for the 1946 fiscal year . . . for all commodities and all markets. Title of this bulletin is Commodity Futures Statistics, July 1945–June 1946. The other carries forward the statistical story of futures trading in wheat which was interrupted during the war. The present issue is Wheat Futures Statistics, July 1942–June 1946. Copies of these publications may be obtained by writing the Commodity Exchange Authority, USDA, Washington 25, D. C.

Treat B. Johnson

The death of Treat B. Johnson at 72, famous Yale biochemist, makes the editorial mind revert to our final effort in the field of research biochemistry which got us mixed up with glutathione and landed us for a few weeks in Sterling Chemical Laboratory under Johnson's tutelage. We were then with Bureau of Dairy Industry. Johnson was an inspiring and notable man whose researches were famous in pyrimidine chemistry, investigation of the tubercule bacilli, the organic sulfur compounds, medicinal products, proteins and their constituents. He retired, disabled by his heart, in 1945, and was miserable. when last we talked to him because he could no longer be active in the lab.

Zoological Subspecies of Man at the Peace Table

Possibly the item is not strictly farm news, but anything concerned with man has an agricultural flavor. Anyway we should like to tip you off to look up the article of this title by E. Raymond Hall, of the University of Kansas, in the Journal of Mammalogy for November 1946 (Vol. 27, No. 4, p. 358 ff.). If we were a little late sounding off, remember "we" are not a mammologist. But the article does contain food for thought.

Some new publications

First Aid for the Irrigator, Miscellaneous Publication No. 624, comes from the Engineering Division of Farmers Home Administration, is available for 20 cents from the Superintendent of Documents, Government Printing Office, and gives concisely and with apt drawings just about all anybody would want to know on the subject. . . . Farmers' Bulletin No. 1985 is entitled "Seed for Regrassing Great Plains Areas," was issued July 1947, and was prepared by three Soil Conservation Service Agronomists. . . . Home Canning of Fruits and Vegetables (USDA AIS–64, July 1947) contains the latest information our Bureau of Human Nutrition and Home Economics has on the subject and strikes a strict noncanner like the writer, as being full of useful information made practical by clear text and illustrations so illuminating that said noncanner almost feels as if he himself could do a right smart job of canning, after perusal. It is an admirable example of making pictures and the fewest words possible tell the story.

Epitaphs

Dana Reynolds of Radio Service has gone forth in part to close up the Western Office of the Service, which was opened January 1, 1931. Budget cuts make its discontinuation mandatory. Discontinued radio projects are Good Eating, Radio Round-up, and now, Consumer Time, the network weekly presentation over NBC.

PMA echoes

Some kindly soul who realizes that editors in Washington need to know more about what goes in the field has sent in, from Mountain City, Tenn., two or three issues of the lively illustrated "letter" gotten out under the above title by the county ACP committee and directed to the committeemen. The samples aptly depict what any group of full or part-time USDA employees can do for itself anywhere if they have the mind to, and it takes a mind, of course, to get out a news letter as informative and as bright as this one. Incidentally those letters done out of hours and at the employees' expense tend to be brightest of all!

REA News

Rural Electrification News for June-July, contains mighty good articles on Planning Better Use of Office Space and on Your Electric Wiring. In fact, it might truthfully be said that it contains mighty good articles, period.

Abridged Chronology of Agriculture's Part in the War

In case you missed our "final" offer of this corrected document, we now make a final-final one. It is a chronological list of events in the war period as they affected agriculture in general, the Department of Agriculture in particular. The Bureau of Agricultural Economics' historians went over it and rendered it accurate for permanent file purposes. We have about 100 copies. If you want one to file for reference drop a line to T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C. *Please do not phone,* but any legible note you chuck in the mail will do. Request by title.

Crow Indian heads SCS

Anyway the Daily Missoulian of July 24 says that Dr. H. H. Bennett, Chief of Soil Conservation Service, became a full-fledged member of the Crow Indian tribe on the 23d, following rites held in Hardin in connection with a conservation field day. Hail to the chief!

FS new fire chief

Arthur A. Brown has succeeded the late David Godwin as Forest Service's fire chief, the latter having been killed in the commercial air liner crash in West Virginia, June 13. Born in Kansas, Brown early moved to Ohio, and graduated from University of Michigan with a B. S. in forestry in 1922. However, he was a seasonal laborer with FS in Montana during summer 1921; he became a forest assistant immediately after graduation. He worked in Montana and Idaho until assigned to a fire research project at Berkeley, Calif., in October 1930. He was placed in charge of a forest fire-control project for all California forests in December 1935 and, in April 1937, became chief of fire control for FS Region 2. After being assigned, in February 1944, to coordinate and standardize fire control plans and activities in all FS regions, he was made assistant to the fire control chief in Washington, September 9, 1945. He is the author of numerous articles on forest fire control.

Elsworth passes

R. H. Elsworth, who died in Regina, Sask., Canada, on July 26, aged 75, retired in 1943 as head of the Historical and Statistical Section, Cooperative Research and Service Division, Farm Credit Administration. An expert on farmer cooperation he was author of several bulletins and numerous articles on the subject. He was a native of Michigan and a graduate of its university. He lived in California after retirement.

Dressmaker Flowers

If you were to attend a class on floriculture and went in to discover the professor exhibiting anthropological specimens, you would probably rush out to scan the room number to make certain you had entered the right door. And when you found you had, you would still be a little dismayed. Something like that happened in Mississippi in July when 40 agricultural workers attending summer school came to hear a discourse on news-writing, only to find Extension Editor Jack Flowers exhibiting several yards of soft blue material, saying "I'm going to make a dress this afternoon." Selecting a volunteer home demonstration agent who wore size 14, dressmaker Jack began to cut his pattern. With each deft stroke, he compared the step to a segment of the news story. When the dress assumed its proper form, a complete story about a home demonstration club feature, printed on the cloth, was readable.

Rubber

What became of our efforts to encourage rubber growing in South America during the war? Dr. E. W. Brandes, who was in charge of USDA rubber investigations, says that the cooperative natural rubber program has emerged from the nursery stage in Brazil, Colombia, Costa Rica, Guatemala, Haiti, Honduras, Mexico, and Peru. About 29,000 acres of field plantings are now established in government demonstration areas, on coffee, banana, and other plantations, and on nearly a thousand small farms. USDA maintains scientists and technicians in various centers to conduct research and train local workers. The return of rubber here as an economic crop became possible by the introduction of clones from high-yielding Hevea trees in the Far East, and by development of leaf-blight-control methods. Rubber plantings of 5 to 10 acres will offer a profitable long-term enterprise to small farmers in Latin America and will help build a strong diversified agriculture in the tropics.

Household hints

Food and Home Notes for release July 30, contained material on safe scouring of bathtubs, washbowls, and sinks; the removal of metal stains from fabrics; and methods of fighting mildew on upholstered articles, mattresses, rugs, leather, wood, and wallpaper. Contact Helen C. Douglass, Office of Information, USDA, Washington 25, D. C., and she might be persuaded to part with a copy of this material which is authoritative and of permanent value.

Superior employees

Superior accomplishment pay increases were recently awarded, with appropriate ceremony, to William H. Cheesman and Alice I. Fray, technical editors for Bureau of Plant Industry, Soils, and Agricultural Engineering. The former was cited for his aptitude (and, we'd add, diplomacy!) for collaborating with authors of technical publications and his sound advice on effective presentation, as well as for his effectiveness in training less experienced personnel. Miss Fray won recognition for what Dr. Karl T. Compton, Chairman of the President's Advisory Commission on Universal Training, called her "many signal accomplishments" during a recent detail to this Commission. Cheesman has been with the Government since 1905, with USDA since 1913; Miss Fray joined the Office of Information in the thirties as a CAF–1. There is always room at the top if you work in that direction.

Forever Amber

Sorry, but you're wrong. That's the title of the lead article in The London Economist for July 12. It somewhat pessimistically but very informatively discusses Britain's imminent economic crisis; you would do well to get it from the Library and read it for better understanding of conditions in the United Kingdom. O yes, the amber refers to traffic lights; the Economist insists that immediate action must be taken to solve Britain's problems for: "The colour is red—for danger," and no longer amber.

Byerly promoted

Dr. T. C. Byerly has succeeded Dr. Hugh C. McPhee as head of the Animal Husbandry Division, Bureau of Animal Industry, as the latter's duties as assistant chief of BAI will now absorb all his time. A native of Iowa, Byerly entered BAI as poultry physiologist June 1, 1929, serving as such until October 20, 1937, when he left to become professor of poultry husbandry at University of Maryland. On July 1, 1941, he returned to BAI as head of its poultry-husbandry investigations and supervisor of the National Poultry Improvement Plan. He was in charge of UNRRA's rehabilitation program for 1½ years immediately after the war.

Retirement deductions return

Public Law 263, Eightieth Congress, so amended the Civil Service Retirement Act as to permit return of retirement deductions from pay of employees separated before completing 10 years of service. This amendment was approved July 30, 1947, as effective January 24, 1942.

Melphonis inflatus

Or you may say *Camponotus inflatus*, if you like that better. In any case the inflation is authentic, for this is the Australian honey ant which, for reasons of its own, feeds a few select members of its societies until their abdomens become huge (size of a pea) inflated balls of honey, so the native women use them for sweetening purposes. The tasty morsels are held by the head while the honey-filled abdomen is bitten off. At least the Australian News and Information Bureau vouches for this.

Cotton Loan Program

The 1947 Cotton Loan Program is explained in Press Release No. 1713, dated July 30; procure it from Press Service *by mail*.

Brannan and the Chest

Assistant Secretary Brannan will head Community Chest Federation Campaign volunteers in his Department, a division of the Government Unit of the drive for 1948 operating funds for 125 Red Feather agencies. Brannan, who was appointed to the Chest position by Assistant Secretary of the Navy, W. John Kenney, Government Unit Chairman, served as an agricultural advisor to the United Nations Economic and Social Council (UNESCO). A native of Denver, and a former attorney there, he was regional director for the Farm Security Administration for some years. He was also regional attorney for the Office of the Solicitor for some time. The Community Chest Federation campaign, representing Community Chests in Washington, Alexandria, and the counties of Arlington, Fairfax, Montgomery, and Prince Georges, opens in the fall.

Crop insurance

The new crop insurance legislation limits the program to a strictly experimental basis. Wheat may be insured in no more than 200 counties, cotton in no more than 56, corn and flax in no more than 50 each, and tobacco in no more than 35. The FCIC Board of Directors grows from 3 to 5, of whom 2 must be experienced in the insurance business and not otherwise employed by the Government. For details procure press release No. 1755 from Press Service *by mail*.

Sugar

The Sugar Act of 1937 was essentially reenacted by Congress, but with important changes relating to the method of calculating the annual sugar-consumption estimate, quotas for various producing areas, and the allocation of area deficits to other producing areas. This legislation, known as the Sugar Act of 1948, will run 5 years.

Francis A. Flood

This inveterate, incorrigible, and indefatigable world traveler left our Office of Foreign Agricultural Relations to become Agricultural Attache in Ottawa September 1. This is a logical step for a man who crossed the Sahara Desert on a motorcycle, jaunted 150 miles afoot in the middle of Borneo, walked long distances on the Malay Peninsula, visited the Polar Arctic, Australia, South and Central America, and Europe—the last many times. He did not, however, traverse the Himalayas on roller skates—that story is apocryphal. He did spend some years as associate editor of the Nebraska Farmer and also of the Oklahoma Farmer-Stockman, and he has recently had a regular column in Country Gentleman. More geography to him!

Wallace Kadderly

The former head of USDA's Radio Service is back from his flying trip—and we *do* mean flying—to Australia and New Zealand, of which he has produced a mimeographed report. If interested, write him for a copy at Station KGW, Portland, Oreg. His doings should be of particular interest to radio workers.

Exhibits

If you can possibly do so, see some of the fine exhibits our Exhibits Service produces—like the one for the Midland Empire Fair, in Billings, Mont., during August. If you cannot see one, read about this one on soil conservation and wise use of the land in Press Release No. 1751, available from Press Service *by mail*.

Agricultural Outlook Digest

This two-page one-sheet digest, available from Bureau of Agricultural Economics, gives you as fine a general survey, and as easy to read, of the agricultural situation as you could get. It's a monthly. It's in small type but, like our BBI's, perfectly legible.

Pasteurization test

A modified phosphatase test, originally developed and perfected for use on Cheddar cheese by the Bureau of Dairy Industry, to determine whether the milk used in making the cheese had been pasteurized or not, has now been developed so that it can be applied successfully to fluid milk; cream; Cheddar, Swiss, and other hard cheeses; process cheese and cheese spreads; cottage and other soft, unripened cheeses; butter, buttermilk; fermented milk drinks; ice-cream mix; sherbet; chocolate milk; cheese whey; and (with less sensitivity) goat's milk. The test promises to be useful as a public health safeguard. Procure No. 1749 from Press Service for details.

Future of Dried Eggs

The editor of *USDA* has some reprints of an article by this title in June Journal of the American Dietetic Association; it concerns the work on dehydrated food at Western Regional Research Laboratory. Want a copy?

Dan M. Braun

Division of Training, Office of Personnel, has returned from Stockholm, Sweden, where he attended the 8th International Management Congress, long postponed because of the war. If interested in what he found out there, prod him.

Wax from lignin

Oregon State College reports that that State's Forest Products Laboratory has been recovering 5 tons of high-melting-point wax from the 60–70 tons of lignin it produces daily. This development should have an important bearing on alcohol production from wood waste. Contact Dr. Erwin F. Kurth, professor of wood chemistry at Oregon State, for details.

Press Officer Please

Some *USDA* readers may be interested in Press Officer Please, by F. Howard Lancum, M. B. E., Press Officer of the British Ministry of Agriculture and Fisheries during the war. Besides being a whimsical account of the day-to-day headaches of a government information man in wartime, it is a story of how the war affected English agriculture. The story is told mostly by illustration. One will suffice. A Welsh farmer was cursing government forms. When a reporter asked him why, he explained that wherever a form asked for the location of his farm, he had to write: "Llanfairpwllgwyngyllgerchwrndrobwllilliandysiliogogogoch!" Ouch! (p. 89.) The Library has this book.

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U. S. GOVERNMENT PRINTING OFFICE: 1947

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U. S. DEPT. OF AGRICULTURE

USDA

FOR SEPTEMBER 15, 1947

FHA now

UNDER THE new insured-mortgage program of the Farmers Home Administration private credit sources have increased opportunity to participate in the financing of family-type farm purchases. Congress recently appropriated an insured mortgage fund which will enable FHA to insure loans made by private lenders up to 90 percent of the reasonable value of the farm. In addition, direct farm-purchase and farm-operating loans will be available as heretofore. All loans made or insured by the FHA are for farmers who cannot obtain adequate credit elsewhere.

Programs which will be operated during the coming year include:

Production and subsistence: This will provide short-term credit at 5 percent interest for the purchase of seed, feed, articles for family living, livestock, and farm equipment. If a farmer must make a major adjustment in his farm and home operations, FHA supervisors will also provide guidance in making the changes. Approximately $68,000,000 will be available for such loans.

Farm ownership, enlargement, and development: Includes both direct Government loans and insurance of loans by private lenders for the purchase, enlargement, and development of family-type farms. These loans will bear 3½-percent interest and run 40 years. Repayments will be made on a variable payment plan which permits repayment of large amounts in good crop years so that a reserve may be built up against possible low income in bad years. Loans are made only after a county committee of three local persons, at least two of whom are farmers, has appraised the farm and certified that it can be purchased, at a price based on long-time earning-capacity values. This committee also certifies applicant eligibility. During fiscal 1948, 15 million dollars will be available for direct loans.

Water facilities: These loans will be made to individuals and to groups requiring credit for the installation or use of water facilities necessary for the most efficient use of their farm or ranch lands in the 17 Western States. The apropriation for these loans is $1,500,000.

Veterans will be given preference in all programs.

"With the reduced personnel, loan funds and the heavy demand for our assistance, we must exert every effort to extend the benefits of our program to the largest possible number of deserving families," Administrator Dillard B. Lasseter recently told a meeting of State directors in Washington.

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Horace Terhune Herrick

Mr. HERRICK, who is Special Assistant to the Chief of the Bureau of Agricultural and Industrial Chemistry, is one of the country's leading authorities on the industrial utilization of agricultural commodities. He has been connected with the chemical research in the Department for nearly a quarter of a century. He started BAIC's fermentation work, which expanded with the years until it could render invaluable aid in the early stages of the commercial development of penicillin. He was head of the Bureau's Color and Farm Waste Laboratory from the time he joined the staff, in 1926, until 1935.

From 1935–38 Herrick was head of the Industrial Farm Products Research Division, and from 1938–42 Assistant Chief of the Bureau in charge of the planning, construction, and staffing of the four Regional Research Laboratories. He was Director of the Nothern Regional Laboratory at Peoria, Ill., from 1942–46. Because of his special training and experience he is particularly qualified to advise and assist the Chief in planning and carrying out programs to encourage the use of agricultural products in industry. He had more than 15 years' experience in manufacture of such industrial materials as illuminating gas, dyes, and fine and heavy chemicals, before joining the Department. He was a lieutenant colonel in the Chemical Warfare Service Reserve between the two wars.

Under the leadership of the late Dr. Henry G. Knight, Mr. Herrick did outstanding work in the planning, building, equipping, and staffing of the four Regional Research Laboratories which were authorized by Congress in 1938, to search for new and wider industrial outlets and markets for farm crops. He, along with Dr. W. W. Skinner and the late Dr. F. P. Veitch, was among the first in the Department to advocate the "chemurgic" or industrial use of farm products. They were early advocates of the pilot-plant or semicommercial-scale type of research which has proved so profitable in the four laboratories. As a result of their vision and planning, one-third of the entire space in each of these large research centers is now devoted to pilot-plant investigations.

You and the Intern Program

HOW MUCH do *you* know about the Administrative Intern Program, announced by Civil Service Commission April 15? And brought to the attention of heads of USDA's administrations, bureaus, and offices by Office of Personnel May 6? The idea is to assist in discovering and training employees possessed of superior potential administrative and/or executive abilities. The program is sponsored by the interdepartmental Committee on Administrative Interns. Supervisors recommend candidates, agency heads endorse them, final selection is made after careful study of the individuals involved.

The number of persons nominated as candidates for the first six of the annual Intern Programs was 82, for USDA, of whom 19 were selected by Civil Service Commission's Interview Panel actually to participate. It is significant that only five agencies—Personnel, Production and Marketing Administration, Bureau of Agricultural Economics, Farmers Home Administration, and Forest Service—have so far contributed an intern for actual training. Obviously the news has not gotten around as it should.

The plan cannot be explained in detail in the space at our disposal. *But see your personnel officer or your supervisor and inform yourself about it.* Ask particularly to see a copy of the following, and read it carefully: Director of Personnel Reid's Memorandum No. P–640, dated May 6, to heads of all agencies on the Sixth Administrative Intern Program. *You* may be a potential administrator or executive of the top-flight category. If so, those in charge of the program do not want to pass you by.

Isotope Distribution Program

If interested in this program of the Isotopes Branch, U. S. Atomic Energy Commission, see the lead article in Science for August 29.

Information about the Department

THE 10 mimeographed documents containing information about the Department and issued in connection with USDA have been reduced in number. Documents that remain available to send out are as follows:

1. Origin, Structure, and Functions of the U. S. Department of Agriculture.
2. Abridged List of Federal Laws Applicable to Agriculture (Including Reference to Former Functions).
3. Biographies of Persons in Charge of Federal Agricultural Work, 1836 to Date.
4. Condensed History of the U. S. Department of Agriculture.
5. Our Department Scientists.
6. Important Recent Achievements of Department of Agriculture Scientists.

After copies now on hand are exhausted, *and they have been especially corrected for accuracy in the Bureau of Agricultural Economics,* old No. 3, Abridged Chronology of Agriculture's Part in the War, will be discontinued. The following have been discontinued and copies are exhausted: Current List of Top Officials of the Department of Agriculture (Abridged), hitherto numbered 5 and issued anew each month; old No. 7, Outstanding Scientific Publications by USDA Research Workers Issued by the Department of Agriculture; old No. 2, Constituent Agencies of the U. S. Department of Agriculture. Write—*please do not phone*—The Editor of *USDA* for copies of Nos. 1–6 and old 3.

Phone or write John H. Thurston, Office of the Secretary, to get the abridged list of top USDA officials, formerly our No. 5.

Landing repulsed

EVERY SO often some citizen rises up to sound off as to why we maintain quarantines and what is the good of all the effort the Department makes to prevent insect infestation. What such citizens do not know is that many rapacious would-be invaders are stopped before they land here. A recent case in point concerns the mango fruitfly, a predatory native of the Far East which got to Hawaii during the war and almost slipped into the U. S. on a couple of recent occasions.

But alert inspectors of the Bureau of Entomology and Plant Quarantine found 42 live maggots in overripe bananas in a passenger's luggage on a ship from Hawaii docking at San Pedro, Calif. They immediatley destroyed them, and thus another projected landing of what is known in its more formal moments as *Dacus dorsalis* (in its early immaturity) was repulsed. During the first 6 months of this year the inspectors also intercepted the mango fruitfly larvae in avocados, guavas, and Kamani nuts in parcel post packages mailed from Honolulu to various points in the mainland.

The mango fruitfly is not so particular; it dines on some 60 kinds of fruits and vegetables, including also pears, peaches, bananas, citrus fruits, tomatoes, peppers, and eggplants. Should it effect a landing here it would become one of the most injurious agricultural pests in the Nation. Its failure to enter may be attributed to intelligent and ever-vigilant enforcement of the Plant Quarantine Act of 1912 by a staff of inspectors at our principal maritime and border ports of entry. U. S. Customs and Public Health officials cooperate.

Meat inspection under fee

THE STATUS of Federal meat inspection, so long carried on by the Bureau of Animal Industry, was somewhat changed by the recent Agricultural Appropriation Act.

The service has heretofore been financed from public funds but, under the new system, effective July 1, the packers will pay fees for the service. The USDA will pay the inspectors, as in the past, but will collect the cost from the establishments served; moreover the inspectors will still be selected and appointed under Civil Service procedures and will retain their rights as Civil Service employees. In directing establishment of the new system the Congress allotted $5,000,000 as a working capital fund to start it off.

This service has usually cost about 11 million dollars of public funds annually, but it was always rendered with exceeding economy. This sum averages about one cent a month per person in the United States. Even if the entire cost of meat inspection were passed along to consumers it would have negligible influence on the price of meat, nor would it have material effect on prices paid producers for their livestock. The same thoroughness and economy of inspection will prevail under the new system as under the old.

●

Interested in FAO?

If you want to keep up with what the Food and Agriculture Organization of the United Nations is doing, you should arrange to secure its Information Service Bulletin published monthly. The variety of topics presented in even one issue is astonishing and one can readily see in FAO an important new force in world agricultural affairs. Address Patrick W. Condon, Office of Information, USDA, Washington, D. C. 25.

"Talk Turkey!"

WE purloined the following material, designed to make Forest Service writers of letters, reports, and instructions write simply, from the Administrative Bulletin of FS Region 3, dated July 2. Therein it was attributed to FS "Self Helps," and wound up with this sentence in caps, "CHOOSE THE SIMPLEST WORD THAT CARRIES YOUR MEANING!"

Unnecessarily long, technical, or highbrow words give the impression that we are "Legalistic bureaucrats making things more difficult than they are . . . Professionals more anxious to impress than inform . . . or pompous people trying to show how much we know." We really are not, so let's try to write . . .

Like this	*and*	*Not like this*
many people		a substantial segment of the population
know well		fully cognizant of
object		interpose an objection
made up of many forest units		comprising numerous forests
wait		hold in abeyance
issue the regulation		promulgate the regulation
carry out the policy		effectuate or implement the policy
as you requested		pursuant to your request
before, after		prior to, subsequent to
get the facts		ascertain (secure) the data
ask him		interrogate the claimant
tries to explain		purports to construe
find it hard to		encounter difficulty in
clear difference		marked discrepancy
begin (or start) a project		initiate (or institute) a project
complete the arrangement		consummate the arrangement
in the first place		in the initial instance
about		of the order of magnitude

PAIS-Club boys and girls

SOUNDS ODD to you? Well, that's the South American way when it comes to 4-H Clubs. The Argentinian Government, through its General Bureau of Extension and Agricultural Development, for instance, is sponsoring youth clubs patterned on our 4-H Clubs. There are now 700 local youth units, whereas only a few clubs existed in 1945, when active field organization began.

The membership symbol is a four-leaf clover, but the initials P. A. I. S., spelling the Spanish word for "country," individually stand for "Pensamiento," or thought; "Accion" or action; "Integridad" or integrity; and "Salud" or health. Leaders down below credit the United States 4-H Clubs with having inspired Argentina's program and one of the leading organizers, Oscar P. Chicza, studied Extension methods in this country during the past several years.

Brief but important

Write, please do not phone

This has become a common expression these short-handed days. Telephone messages are time-consuming interruptions and often build up to incredible peaks. More and more offices are asking that interoffice mail be used in lieu of the phone whenever possible. That is imperative with *USDA*, now a strictly one-person job. *Write, please do not phone, for materials mentioned or offered or on all other business whenever possible.* Whether in Washington or in the field, just toss your sentiments in the mail and they will receive prompt attention.

Speaking writing

Commenting on the article of this title in our July 7 issued Arthur Koehler, Forest Products Laboratory, remarks upon hearing two Tennessee farmers discuss their difficulties in negotiating a road with their truck after a heavy rain. Said one: "The road was so boggy it like as pulled me and Henry plumb down to the bottom."

Wool price supports

S. 1498 directs the Commodity Credit Corporation to continue until Dec. 31, 1948, to support a price to producers of wool at the price it supported wool in 1946; authorizes CCC to adjust support prices for individual grades and qualities of wool and to make discounts for off-quality, inferior-grade, or poorly prepared wool; authorizes use of county and local committees and other authorized agencies in carrying out the support program; and provides that the CCC may, until Dec. 31, 1948, dispose of wool owned by it without regard to any restriction imposed upon it by law. Approved August 5 (Public Law 360, 80th Cong.).

Extension workers especially

Will find Looking Ahead in Extension Relations, the address delivered by Paul V. Kepner, assistant to the Director of Extension, before the ACE meeting at Minneapolis, August 7, of interest. They can get copies from Extension Information, Extension Service, in Washington.

Danger!

The new weed killer, 2,4–D, is a two-edged sword and much more powerful than many realize. Reports from Louisiana and Texas indicate extensive damage to cotton and other field crops from 2,4–D dust when applied to rice fields by plane, and blown over. The dust is very injurious to any broad-leaved crop plant. Use with care as a herbicide and get expert advice if uncertain.

What's in a flea's stomach

Ordinarily, our first and only impulse is promptly to squash the flea and we don't give a hang about what his "innards" may contain. Not so, however, with Marcel L. F. Foubert, a photographer in the Photo Laboratory of Plant and Operations, who retired July 31, 1947, after more than 29 years of service. Foubert's successful photomicrographs of micro-organisms existing in the stomachs of fleas were used by Department scientists in combatting certain diseases in the highly prized herd of dairy cows at the Agricultural Research Center at Beltsville. Foubert also made some of the first successful color photographs of plant diseases, and his untiring efforts, patients, and photographic skill over the years have contributed much to the scientific achievements of the Department. His photographs have appeared in many departmental publications and have been reproduced in the scientific literature of many other countries.

Cartoon technique

For an interesting use of cartoon technique to convey useful information see the publications entitled "What Kind of Wool Do YOU Market?" and "How Much Did YOUR Wool Bring?" on which Farm Credit Administration, Extension Service, and Production and Marketing Administration cooperated nobly and effectively.

When does *USDA* reach you?

The Government Printing Office is doing a fine job on *USDA*. The house organ emerges from the G. P. O. either on the date of issue or, as often as not, the previous Friday. If copies reach you late, distribution must be clogged within your own agency, office, laboratory, division, or whatisit? If you'd like to see *USDA* nearer the date of issue, but get it very late, try to find where the pipe is clogged and unstop it!

File *USDA*

We often make back reference to earlier issues of *USDA*. We have to do that to conserve space. Does your laboratory or office have a file of *USDA*? You would probably find it of value for reference. Some offices index the issues as they come for reference purposes. You can procure copies of most back issues of *USDA* to start your file by *writing* to Elmer Thompson, Office of Information, U.S.D.A. Washington 25, D. C., giving him the dates of those you want. You can get individual numbers of most missing issues from the editor of *USDA*.

The twist to the vine

The New York Botanical Garden was asked recently whether plants (and pig's tails) which twine in one direction in the Northern Hemisphere reverse themselves in the Southern and twist the other way. The answer is NO. Fred J. Seaver of the Garden writes that, though the notion is "quite prevalent among nonprofessionals, and even some botanists, there is apparently no foundation for this belief. It seems to be a tradition based on a misunderstanding of some of Darwin's statements." Darwin made some such statement in his Movements and Habits of Climbing Plants (1882), but it involved two different species of the same plant. The Botanical Garden refused to rule on the twist to pig's tails and suggested the Zoological Garden as the proper point of reference, but its somewhat arrogant sniffing implied that the fallacy extended to the porcine species too.

Where farmers get ideas

Alabama Polytechnic Institute, Auburn, Ala., has just issued an informative communications study by Robert Leigh entitled "How Alabama Farmers Get Agricultural Information." It is mimeographed and runs about 40 pages, on one side. About one-fourth the farmers surveyed derived their new ideas from neighbors and friends; next came farm magazines, newspapers, publications, farm meetings, and radio in that order. But we must remember that much of the information neighbors, friends, farm journals, newspapers, and the radio disseminate originally came from State or Federal agricultural agencies. If interested in the detailed analysis of the findings send to Auburn for a copy of the study.

Says a visitor to Japan

"Would you like to plant, cultivate and harvest all your grain and other crops by hand? Would you like to stand in mud and water up to your knees to plant and harvest your principal crop? Would you like to farm without an automobile, without a truck, without a tractor? . . . If your answer is YES, you'd probably think farming in Japan is fine . . . But if you'd been raised on a North Dakota wheat farm, as I was . . . you'd likely conclude farming in Japan is hard, back-breaking work, with a mightly low standard of living in return."

Smoke jumpers in Sask

The Saskatchewan News, a weekly informational and news bulletin issued by the Bureau of Publications in Regina, recounts, in its August 11 issue, exploits of Canadian smoke jumpers who fight forest fires. To quote: " 'Smoke jumping' is not a new idea, the United States Forest Service having adopted the scheme with excellent results in recent years. However, it is new in this country." The foresters of Sask studied American methods in use at Missoula, then persuaded their provincial government to organize a school and undertake this same modern fire-fighting method.

Patents

Policy regarding Foreign Patents on Inventions Resulting from Research Financed by Department Funds, is outlined in Secretary's Memorandum No. 1200, August 13; procure from Secretary's Records, Plant and Operations, USDA, Washington 25, D. C.

Snedecor retires

The famous statistician, founder and only director of the Iowa State Statistical Laboratory (organized in 1933), Geo. W. Snedecor, has retired. Laudatory comment came in from all over. Prof. Snedecor joined Iowa State as a mathematics instructor 34 years ago and has become a tradition and almost a legend during his lifetime. In 1923 he joined with Henry A. Wallace and Charles F. Sarle in promoting a weekly conference of 20 faculty research members to study multiple regression and other statistical methods. This resulted in the Wallace-Snedecor bulletin—Correlation and Machine Calculation—which attained worldwide respect. Snedecor's outstanding career cannot be summarized here, but by all means get Statlab Review for July 1 (vol. 2, No. 3) from Joseph C. Dodson, Statistical Lab, Iowa State College, Ames, Iowa, and read about it. Incidentally the Statistical Lab has just issued its 1946–47 report; you might want a copy; it will be mailed from Ames on request.

Typists!

Can you hyphenate? Or do you suffer from paralytic atrophy of hyphenation muscle? Maybe you should be psychoanalyzed! But first why not try "Dr." Lynch's guaranteed hyphenation prescription. One dose and you hyphenate a hundred percent better. The editor tried it. "Dr." Lynch set down a list of 18 words; he correctly hyhenated 9 of them and went to the foot of the class. Since he was the only one in the class he had a chance to get ahead. He turned the page and found a page and a half of instructions on the syllabication of words. After beating this into his head a while he tried another list of 18 words "Dr." Lynch presented and got 17 of them right. If interested in this brief instruction course on proper hyphenation, address Miss Charline E. Lynch, Division of Training, Office of Personnel, USDA, Washington 25, D. C., and get yourself a copy.

200 counties

The 200 counties where Federal crop insurance on wheat will be in effect during the coming year were announced, August 18, by Gus F. Geissler, Manager of the Federal Crop Insurance Corporation. For details *write, please do not phone,* Press Service, USDA, Washington 25, D. C. and ask for No. 1862.

Farm program

The Congressional Record dated August 15 contained Rep. Hope's Report on the Work and Activities of the House Committee on Agriculture for the First Session of the Eightieth Congress; it includes summaries of bills reported by the Committee. See pages A4387–91.

FAO delegation to Geneva

The U S. delegation to the Geneva conference of the Food and Agriculture Organization, which began August 25, was headed by Under Secretary Dodd, with Leslie A. Wheeler, Director of Office of Foreign Agricultural Relations, and Director Wm. A. Jump of Budget and Finance as alternates. The agricultural experts attending the delegates were F. F. Elliott, Bureau of Agricultural Economics; E. I. Kotok, Forest Service; W. V. Lambert, Agricultural Research Administration; Duncan Wall, FAR; and Homer Brinkley, National Council of Farm Co-ops. The Congressional advisers were Senators Elmer Thomas and Milton R. Young and Representatives Reid F. Murray and Orville Zimmerman. Albert S. Goss represented the Grange, W. Raymond Ogg the Farm Bureau, and James G. Patton the Farmers' Union.

Experiment station report

Connecticut Agricultural Experiment Station, New Haven, has issued its 64-page annual report. It is entitled "Science Works for Agriculture," and shows how research aids the farmer in each of the eight phases of the station's work. It is free—*to residents of Connecticut;* others see it in libraries.

Nutrition and Symbiosis

There is a singularly informative, fully documented article on this subject by Dr. E. C. Owen, Hannah Dairy Research Institute, Kirkhill, Ayr, in Nature (London) for July 19, available from the Library. Much of the discussion concerns the interesting manner in which rumen bacteria digest cellulose, whereas the ruminant itself can do no such thing. Evidence is also presented to show that man, as well as other animals, at times produces B-vitamines by bacterial action in his colon.

REA publication

Planning Your Farmstead Wiring and Lighting, Miscellaneous Publication 597, from Rural Electrification Administration, contains a wealth of information on the subject, so written and diagrammed as to give it maximum practical utility. Moreover, what is said about the farm home is applicable to other homes as well.

Tomorrow's Food

A reading of the review of this book, subtitled "The Coming Revolution in Nutrition," and written by James Rorty and N. Philip Norman, M. D. (Prentice Hall, publisher, New York City), which appears in Soil Conservation for August, will do much to tell you whether you want to read it. The review was prepared by W. A. Albrecht. Soil Conservation is a monthly issued by Soil Conservation Service at $1 a year, and this issue contains many other items of interest.

Retirement plans

Do you have any? If you haven't, you may be bored to death on retirement, and we *do mean* death. For, without plans for the constructive use of leisure, many retirees actually do die prematurely. However, one retired employee writes: "As a matter of fact, all my life has been a preparation for retirement, since I have developed an interest in so many things that it is difficult to see how I can ever have a dull moment or be bored." That's the method—and the spirit!

Farm Science in Industry

Dallas Bureh of the Bureau of Animal Industry has prepared a 10-page mimeographed statement on this topic. It shows the benefits derived by private enterprise, business and industry, from research and service activities of various USDA agencies. To procure copies address D. S. Bureh, Agricultural Research Administration, USDA, Washington 25, D. C.

Radio people

We used this lead for a BBI item in the July 7 *USDA*, pg. 3, with reference to a mimeographed report made by Dana Reynolds, Radio Service, to Ken Gapen, chief thereof. We had more requests than we had copies. Now we have copies of a report Dana made to Ken on his June 2–22 trip to West Virginia, Kansas, Utah, Wyoming, and Oklahoma. We think anybody in radio work, county agents in particular, will find hints in it of value to them. *Write, please do not phone,* for copies to T. Swann Harding, Office of Information, *USDA*, Washington 25, D. C.

Production Credit System

The Production Credit System is a 16-page pamphlet, available from Information and Extension Division, Farm Credit Administration, which clearly, concisely, and understandably treats this permanent short-term credit system established by the Farm Credit Act of 1933.

Hen hypnosis

A British doctor reported in the Lancet for July 19: "I placed a hen with its beak on a chalk line (jolly difficult . . .) and on letting go gradually the hen stayed there—nose to the line (looking a most frightful ass) until after half a minute she gradually raised her head about two inches off the ground, then the spell snapped and she was off with a squawk." A white tape pinned on the lawn worked even better. But on repeating the experiment without a chalk line or tape, "No success at all. The hen was abusive and violent and escaped rapidly." The doc now wants a grant to repeat the experiments with tapes of different colors, coronal as well as sagittal in direction. Vocabulary-improvement class form to the right. This man would probably say he was glabrous when he went bald!

New Millions for Research

The American Journal of Pharmacy for May contains an article under this title discussing the Agricultural Research and Marketing Act of 1946. The editor of *USDA* has *a few* separates of it. The same applies to the article entitled "Relining the American Stomach" in the June issue of the same journal (which came out 2 days after the May issue)! It is a historical discussion of changes in U. S. food preferences. *Write, please do not phone.*

If you want details on—

Aerosol control of greenhouse insects get Press Release No. 1833; or on the farm labor camp liquidation program, get No. 1837. *Write, please do not phone,* Press Service, USDA, Washington 25, D. C.

Sunflower protein

Until recently the value of sunflower protein was in dispute, though the sunflower is grown for food and feed in many parts of the world. Recent work by Grau and Almquist (Proc. Soc. Exp. Biol. 1945 60 373) seems to have cleared this up by showing that South American sunflower meal promotes chick growth as well as casein or as sardine meal, nor is its biological value improved by adding lysine. At a 20-percent level it seemed to be satisfactory as a complete source of amino acids for growing chicks. Since the plant also yields a good oil it seems deserving of further consideration and research.

Peanut fiber

Florida Grower (Tampa) for August carries a readable account of protein fiber possibilities, with emphasis on the peanut, drawn from an address delivered a while back by Walter M. Scott, Director of the Southern Regional Research Laboratory, New Orleans.

What the 80th Congress did

A Digest of Agricultural Legislation Enacted During the First Session of the 80th Congress has been prepared. Besides legislation approved—both public and private laws—it lists and digests Bills Vetoed, House and Senate Resolutions, Concurrent Resolutions, and President's Reorganization Plans. The material is dated August 15 and is fully indexed. Procure copies from the Division of Legislative Reports, Office of Budget and Finance, USDA, Washington 25, D. C.; phone Ext. 4654.

Charles E. Kellogg

The Chief of the Division of the Soil Survey, Bureau of Plant Industry, Soils, and Agricultural Engineering, has returned from a 3-month visit of Europe and Africa, which included attendance at the Mediterranean Conference of Pedology in southern France and Algeria, a Paris conference for the reorganization of the International Society of Soil Science, a visit to Rothamsted Experimental Station in England and to the University College of North Wales, and a 5-week tour of Belgian Congo as a guest of its National Institute for the Study of Agronomy.

Dr. Stout to OES

Dr. W. B. Stout of Production and Marketing Administration, has joined the staff of Office of Experiment Stations to coordinate USDA-State research programs dealing with all phases of marketing research carried on by the agricultural experiment stations. The position assumes great importance in view of the Research and Marketing Act.

The Award Boards

The Superior Awards Board met July 21, the Distinguished Service Awards Board on the 25th. (See *USDA* for September 1 for membership of the Boards.) The bureaus submitted 92 nominations to the former, 32 to the latter, which are now in the hands of the Secretary. The Government Printing Office is working on the award certificates, the Mint on the medals. A relatively small number of bureaus refrained from submitting recommendations to the Boards. (See *USDA* for March 31–April 14 for the original account of this awards program.)

Cotton mechanization

The talk entitled "The Department of Agriculture's Position on Cotton Mechanization," delivered by Assistant to the Secretary E. D. White, before the Cotton Mechanization Conference, Stoneville, Miss., August 19, is well worth your serious attention. Procure it by *writing* Press Service, USDA, Washington 25, D. C., and asking for No. 1864.

New plant quarantines

The importation of foreign and of Hawaiian-grown citrus nursery stock was prohibited by two plant quarantine orders, announced August 19, by Chief Annand of the Bureau of Entomology and Plant Quarantine, effective September 15. For details *write* Press Service, USDA, Washington 25, D. C. and ask for No. 1874.

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Safety in EPQ

IN COMMON with practically all Department agencies the Bureau of Entomology and Plant Quarantine has the hazard of automobile operation. Risks more peculiar to its work are the handling of poisonous chemicals and gases, working in woods and over rough terrain, working with edged tools and in dangerous places like dock areas and the holds of ships; and the hazards of camp operations, not the least of which is epidemics. EPQ also operates airplanes experimentally, and for large-scale dusting and spraying.

Different risks, of course, call for different preventive measures. Rather than to list these in detail emphasis should be placed on the over-all principles which the Bureau uses in its safety program. These are, first of all, the selling of safety as a job factor and the fixing with the supervisor of the responsibility for the safety of operations under his control.

The Bureau considers safety as a definite line function. Planning for safety includes supervisory conferences, the development of the best and safest work techniques, and an analysis of accident experience. New employees are trained how best to do their jobs and are told and shown the dangers they may encounter and how to cope with them. Training is pursued both through on-the-job work and the use of manuals.

Safe equipment is important. This includes gas masks, laboratory devices, the use of pipes and pumps in the mixing of insecticides, proper clothing for woods work, the regular conditioning of tools and a thorough periodical inspection of motor equipment. It is insisted that accidents shall not be glossed over. It is the Bureau's conviction that a thorough investigation not only fixes responsibility for each accident but insures fairness to everyone concerned, protects the rights of people who may have suffered personal injuries or property damage, and helps to prevent similar occurrences.

Intrepid flyers, FCA dept.

NOT SO long ago Ward W. Fetrow and Ralph A. Battles of Farm Credit Administration flew to Japan for a 2-month stretch to study agricultural co-ops and farm credit, while Ross Silkett and Walter Bauer, also of FCA, winged it to Germany. The Japs were still discovered going through revolving doors the "wrong" way, reading books "backwards," and putting paper clips on the "wrong" side of the papers—according to US! When it comes to farming they and their work animals, including oxen, a *few* horses, and their wives and daughters, man the plow, hoe, sickle, and cart; hand methods are usual, and the plows resemble those of Egypt in the tice of the Pharoahs. But a Jap co-op is the works; the Jap farmer there gets his supplies, markets his products, and procures credit. Credit is needed for fertilizer and to meet ordinary family emergencies; but the Jap farmer, aided by inflation, is better off than ever he was. Few crippled war veterans were observed and the people in rural areas looked well fed.

In Germany, things are tough, as you already know. Shortages are generally apparent; the food situation is critical. Germany is less than 50 percent self-sufficient in feeding herself, as compared with 80 percent before the war. A pound of coffee costs 400 marks in the black market, though 80 percent of all agricultural products go through official sources. The largest incentive is to consume or hoard, not to produce. The farms usually consist of strips quite far apart and the farmer has to walk from one to the other. Power farming as we know it just doesn't exist. Versatile animals supply power, milk, meat, hides, and fertilizer, and farming is intensive to the last degree. In the American zone 66 percent of the farms are 12 acres or less. All were glad to get back home and delighted to be Americans.

Personnel management

GEORGE D. HALSEY has again written an excellent book. This one is entitled "Handbook of Personnel Management" and Harper & Bros. published it. Nearly 400 pages long and divided into 31 chapters, the book discusses every phase of personnel management from job analysis and recruiting employees, on. It offers helpful suggestions every page of the way. In chapter IX, where information booklets for new employees come up for discussion, we find USDA Handbook For Your Information outlined, while chapter XXX, Personnel Management in the Public Service, is wholly devoted to USDA "because it is generally conceded to have one of the best personnel programs in the public service."

We simply cannot begin here to suggest the richness and value of the book. Anyone interested in any step of personnel management—whether tests for workers, employee interviews, employment of the physically handicapped, training programs, merit ratings, correction and discipline, lay-offs and dismissals, grievances, accidents, health, recreation, or self-audits—will be instructed and stimulated. Mr. Halsey, now Personnel Officer of Farm Credit Administration, Third District, Columbia, S. C., and formerly Superintendent of Bloomingdale Bros., Personnel Director for Woodward & Lothrop, and Employment Manager for the Cincinnati Milling Machine Co., writes clearly, concisely, interestingly, factually, and informatively out of a wealth of experience. Contact him or his publisher about the book, or try your bookstore or the Library.

Carnivorous sucklings

Some years ago Dr. Clara Davis performed many experiments to demonstrate that newly weaned infants could safely manage a complete adult diet of natural, unsophisticated foodstuffs, and could also select for themselves a more nutritious combination than their pediatrician was likely to prescribe for them. Now Ruth M. Leverton, Ph. D., of the Nebraska Agricultural Experiment Station (Lincoln), working with physicians, has shown that babies can advantageously be fed milk via the bottle—strained beef, veal, pork, or lamb being added to their formulas when they are 6 weeks old—just sufficient to bring the formula's protein content up to 25 percent, and averaging about an ounce daily. The meat-fed babies appeared satisfied, slept well, and improved in physical condition, nor did they develop the anemia characteristic of their age. But don't toss baby a porkchop; he couldn't manage that. And get details from Dr. Leverton if you want to experiment in the art of inducing your cherub to drink some meat.

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BAE at home and abroad

WHAT'S NEW in U. S. farming was discussed by Dr. Sherman E. Johnson, Assistant Chief of Bureau of Agricultural Economics, at the International Conference of Agricultural Economists, Dartington Hall, Totnes, Devon, England, August 25–September 7. Other invited delegates included Dr. Joseph Ackerman of the Farm Foundation and some 18 representatives of Land-Grant Colleges. While abroad, Dr. Johnson also visited Denmark, Holland, Belgium, and France.

Dr. F. F. Elliott, Associate BAE Chief, was one of the American delegates to the 3d Annual Food and Agriculture Organization Conference in Geneva, Switzerland, August 25. Needed lines of action as to the world food situation were decided upon by representatives of some 50 nations.

At the International Statistical Conference held in Washington, September 6–18, Dr. Margaret Jarman Hagood, BAE, presented a paper on the limitations of potentialities of the application of the theory of experimental design in sociology. Dr. Charles F. Sarle, of the same Bureau, discussed the agricultural statistics program of BAE.

Voracious insects, et al.

PESSIMISTIC PROPHETS have long predicted that the time might come when human beings would surrender world supremacy to the insects—and you might add the fungi. But insects and fungi might also consume or destroy enough food to make humans starve! In a time of world food shortage, which the Food and Agriculture Organization predicts will be as bad, if not worse, the coming year than it has so far been, much to much food is paid as an involuntary tax to insects and fungi.

As this is written, a Technical Meeting of Experts on Losses of Food in Storage is being held by FAO in London. Drs. R. T. Cotton and A. G. Johnson of USDA are among those in attendance, the former being an expert on insects that damage stored cereal, the latter a cereal pathologist. Between the insects and the fungi cereal grains have quite a time of it.

Dr. Cotton estimates that after harvest, insects regularly ruin about 5 percent of the world's cereal food—a very considerable tax to pay for nothing. Such losses could be largely avoided by use of well-known and improved storage methods and facilities. During the past 3 years, our Bureau of Entomology and Plant Quarantine has developed greatly improved methods of protecting stored grains, using such things as residual-type DDT sprays, and seed treatments with dusts containing 1 percent of DDT, or nonpoisonous dusts such as magnesium oxide.

Dr. Johnson says that depredations of fungi exact another over-all tax of 1 percent on the world's grain crop. These losses occur chiefly in humid regions during periods of high temperature. Heaviest losses are in wheat and corn. Activity of fungi is also the chief cause of the heating of moist grain. Armed with enzymes, the fungi cause rapid deterioration of the grains they attack, while excessive heating also makes stored cereals unfit for food. The best protection is to keep the grain as dry and as cool as reasonably possible. Sealed storage of very dry grain is occasionally desirable.

Just ignorance

A WHILE back the Office of Personnel set out to ascertain USDA employees' knowledge about information in its field. They used a questionnaire. There were 50 questions on it—concerned with such things as retirement rules, what to do when accidents happen, reductions in force, separations, annuities, sick and annual leave, appeals procedures, war-service privileges, transfers—both voluntary and officialy ordered, and so on. After reading them, and finding out how much you have to know in order to know how little you know, the editor is not surprised that many employees were ignorant of these things.

They should not be ignorant, of course, for booklets called "What's Your Score?", "What's Your Suggestion?", and materials on the Department's organization and its personnel policy, as well as employee handbooks are available. Yet more than half the employees had never seen them. Supervisors were better informed than nonsupervisory employees and field personnel better than Washington workers. *Make it your duty to be informed about these matters.* If you want more details on the questionnaire, the materials you should read, or related matters in this field, address A. James Martin, Division of Organization and Personnel Management, Office of Personnel, USDA, Washington 25, D. C.

The Crossbred Cow

If you are interested in the controversy set off by the Bureau of Dairy Industry's now famous dairy-cow crossbreeding experiment you might like to see the article of this title in the summer 1947 Farm Quarterly (Cincinnati, Ohio).

Brief but Important

Collins' awards

Former Ensign and naval flyer, George G. Collins, now in the Examination Section of Production and Marketing Administration's Audit Unit, was in effect awarded three medals in a single ceremony on August 21. The presentation was made by the commandant of The Potomac River Naval Command in Washington "by direction of the President." Mr. Collins won the Navy's Air Medal, and two Gold Stars in lieu of Air Medals 2, and 3, for meritorious combat flying in Pacific waters. He says he prefers his present job in the South Building despite a fighting inheritance. Mr. Collins' great-grandfather, Capt. Lytrell Hampton, rode throughout the War Between the States with his famous brother, Gen. Wade Hampton, the Confederate cavalry leader.

What REA loans did

Approximately 396,000 farm families and other rural consumers in 44 States and Alaska will get electric service as a result of loans approved by Rural Electrification Administration during the fiscal year which ended June 30 last. The loans will enable borrowers to build over 135,000 miles of new power lines and to increase the capacity of some systems already built. Loans approved amount to a little over a quarter of a billion dollars, in the main to locally owned and operated rural electric co-ops.

World Fiber Survey

The Food and Agriculture Organization of the United Nations has issued a 176-page World Fiber Survey containing a wide variety of useful information for all interested in natural or synthetic fibers. USDA research on synthetic protein fibers is well covered. Purchase the survey from FAO in Washington, D. C., for $1, or see a Library copy.

Foot-and-mouth notation

H. Nelson Elliott, one of the leading U.S. wild-game experts, has joined the Mexican-U.S. Commission directing the fight against foot-and-mouth disease in Mexico, to advise on the extermination of infected cloven-footed wild game within the main zone quarantined there. The virus attacks all cloven-footed animals, wild or domestic; unless destroyed, infected deer, antelope, and wild swine can quickly spread the virus. Dr. Elliott has long been employed in the wildlife service of the Department of the Interior.

USDA in Missouri River Basin

We have some copies of a report on the Program of the USDA Within the Missouri River Basin, July 1, 1947–June 30, 1948, addressed to the Missouri Basin Inter-Agency Committee and prepared by Gladwin E. Young, USDA Field Representative. The report is well written and well organized; it gives the broad departmental program and then details what each agency contemplates doing in the Basin. It is full of interesting and useful information. If you want a copy *write, please do not phone,* T. Swann Harding, Office of Information, USDA, Washington 25, D. C.

Lost in the garbage

The average rate of loss in retailing fresh fruits and vegetables in bulk, in self-service food stores, amounts to nearly 7 percent of the retail value of the produce handled, or 7.4 percent of the value of actual sales, say $74 loss per $1,000 worth sold. Most of this loss is garbage loss. See Marketing and Transportation Situation for August, issued by Bureau of Agricultural Economics, to get details. Therein Donald R. Stokes, summarizes the survey which provided these and many other interesting figures.

Equus caballus demobilized

This large solid-hoofed herbiverous mammal—a horse, to you—has been let out of the Army, almost certainly for good. The other day 66 Army horses were auctioned off at the West Point stables. The man on horseback—knight, cavalier, chevalier, caballero, cavalryman—is in retreat. Management and care of the horse has ceased to be an essential part of the American soldier's education. The spark plug has replaced the spur. But the cavalry died hard. There was really no tank army in World War I, for those who served with the armored divisions then were detached from cavalry, infantry, or other services. But today the 60-ton tank is the equivalent of the armored knight. The War Department is forming an armored arm in its own right. Yet, so tenacious is tradition, that even it is built around the remnants of the cavalry, but good old *Equus caballus* is on his last legs in the Army.

UNASYLVA

That is the name of the new magazine on forestry and forest products published bimonthly by the Food and Agriculture Organization of the United Nations. It is a handsome affair with pages about 8¼ by 11¼ inches, good paper stock, well illustrated, and having such expert contributors to Vol. 1 No. 1, July–August 1947, as the chief foresters of the United States and the Canadian Governments. Annual subscription is $3.50. Contact Documents Office, FAO, 2000 Massachusetts Avenue NW., Washington 6, D. C.

Where farmers get ideas

According to a study carried on in Vermont by Extension Service and Bureau of Agricultural Economics, three media stand out as sources of information: Farm papers and magazines, the county agents, and friends and neighbors. About 1 farmer in 4 says printed materials, chiefly farm papers and magazines, are the best source, and more than nine-tenths of all farmers interviewed mentioned either the Extension Service or printed materials. The study is 110 pages long.

Storing organic chemicals

Any of you who use organic chemicals may find useful information in a processed item by S. I. Gertler and Milton S. Schechter, Bureau of Entomology and Plant Quarantine, entitled "A System for Storing Organic Chemicals." To procure it, contact Insect Pest Survey and Information, EPQ, Gilbert J. Haeussler, in charge.

Graduate school's 27th year

Opening of the Graduate School's Fall Semester on September 22 marked the beginning of 27 years of service for Federal employees, particularly in Agriculture. Graduate School officials are striving to meet current and future needs of USDA and other Federal employees. More than 200 individual courses in 8 major fields are being offered during the Fall Semester. New courses being offered for the first time include: Poultry Husbandry; Beekeeping; Advances in Plant Breeding and Genetics; Introduction to Public Information Media; Safety Engineering; Economics of Marketing; Engineering in Materials Supply Operations, to mention only a few.

Canadian farm aid

Frank Shefrin, an economist in the Canadian Marketing Service, discusses Canadian Farm-Aid Programs, in Foreign Agriculture for August–September, which also contains a discussion of landlord-tenant relationship in Japan, by W. I. Ladejinsky, of USDA, drawn from his visit there. Foreign Agriculture issues from the Office of Foreign Agricultural Relations. Subscriptions are $1 a year, cash, from the Superintendent of Documents, Government Printing Office, Washington, D. C.

Monthly Labor Review

This periodical from the Bureau of Labor Statistics, available from the Superintendent of Documents at $3.50 a year, often contains some material of agricultural interest. It made its first change in format and organization in 32 years of publication with the July issue. It is more attractive, easier to read, and better organized than before. There is an article on migrant labor in this issue.

Negro agricultural students

Enrollment of agricultural students in the 2 private and 17 land-grant Negro colleges teaching agriculture in the South was 1,875 last year, of which 1,219 were GI's, as compared with a total of 1,764 for 1940.

Put DDT in the doghouse

Also put it in the quarters of other pets who roam afield and bring home objectionable insects. The household spray with a refined kerosene base and 5 percent of DDT added is best for the purpose.

Applied Scientific Research

This new periodical publication began to appear in September from Martinus Nijhoff, The Hague, The Netherlands. It is in two sections: A, Mechanics, Heat; and B, Electrophysics, Acoustics, Optics. Articles will be, preferably, in English, but French and German are accepted. Subscriptions, to the publisher, are $7.60 per volume. Manuscripts should be sent to Dr. Ir. C. W. Kosten, Laboratorium voor Technische Physica, Mijnbouwplein 11, Delft.

Newsprint fodder

The International Chemical Conference which met recently in London learned that cattle (but not pigs) could be fed on sulfite pulp from which newsprint is made. The Norwegian Agricultural School at Valleback reported that bleached sulfite cellulose could be utilized, if propery supplemented with protein. Chopped straw processed with 1.2–1.5 percent sodium hydroxide solution became an acceptable animal feed.

What is malted milk?

That sounds like a $64 question, in view of the fact that so many things are not what they seem these days. In explanation, George E. Holm, who heads the Dairy Research Laboratories, Bureau of Dairy Industry, says: "Malted milk is made by concentrating and drying a mixture of whole milk and liquid obtained from mash of ground barley malt and wheat flour, with or without the addition of sodium chloride, sodium bicarbonate, and potassium bicarbonate. Prior to its use the mash is treated in such a manner that the full enzymic action of the malt extract is obtained. Moistened barley grain is allowed to germinate for from 5 to 7 days at 50° F. and is then dried at a low temperature to preserve its disastatic activity. A mash made of the dried barley grain, ground to a powder, and from 3 to 10 times its quantity of wheat flour, is allowed to react at a favorable temperature until the starch has been converted into dextrin and maltose. The barley husks are separated from the liquor, which is then mixed with whole milk. This mixture is concentrated and then dried, either in a vacuum pan equipped with powerful stirrers or on heated drums enclosed in a vacuum chamber."

Anniversaries

The Bureau of Agricultural Economics attained the age of 25 years during the past July. The Grain Futures Act, which became law September 21, 1922, was also 25 years old; it was amended by the Commodity Exchange Act of June 15, 1936; this gives Commodity Exchange Administration a twenty-fifth anniversary also though, as CEA, it is a relatively new unit.

Finest Mexican dairy herd

The finest dairy herd in Mexico has been slaughtered in the drive against foot-and-mouth disease, which is no respector of owners, animals, or breeding aristocracy. The herd of 270 animals belonged to the Fernandez Rubio brothers, owners of a hacienda near Queretaro; many of the cows had high records and there were 103 registered Holsteins among them. One bull was a national champion for four consecutive years. This step evidences Mexican determination to rid itself of the plague.

Starvation specter

The gaunt features of the starvation specter were in evidence when Sir John Orr, Director General of the Food and Agriculture Organization, addressed the FAO meeting in Geneva in August. Half the world will suffer from famine this winter. "The shadow of economic crises is already upon us" and there is "danger of drifting into a third world war." FAO should have power to do more than merely collect statistics. Millions in Europe will be worse fed next spring than during World War II. Continued hunger reduces human beings to the animal level and tends to blunt the world's conscience. Food production must be doubled during the next 25 years if all people in the world are to be reasonably well fed. Thus Sir John summed up.

New assistant chief of BAIC

Dr. George W. Irving—Maine-born and educated at George Washington—became Assistant Chief of the Bureau of Agricultural and Industrial Chemistry on September 7, with which agency he has been associated since 1942, though he was in USDA and other Government agencies for the past 12 years. He started in as a laboratory helper in the National Bureau of Standards. He has specialized in biochemistry and joined the staff of the Southern Regional Research Laboratory 5 years ago. He and his colleagues first isolated tomatin, the substance which imparts wilt-resistance to tomato plants. His work in BAIC has mostly concerned the proteins and the biologically active compounds. He has headed the Bureau's division on the latter, at Agricultural Research Center, Beltsville, Md., since 1944.

Organization charts

We have copies of a sort of informal, unofficial and very much simplified block chart of the Department's present organization. They are just about the size of the page you are reading, or of a sheet of typewriter paper, and will have to do until such time as a more detailed official chart can be prepared. They merely show the agencies "as is." If you want copies *write, please do not phone*, the editor of *USDA* and order up to six—or as few as you can get along with.

Co-ops on the march

The facts presented in The Cooperative Challenge, a new book by Bertram B. Fowler, (Little, Brown & Co., Boston, publishers, or borrow a Library copy) should be of great interest to many USDA workers.

Those whale steaks

You have no doubt read about the whale steaks the British now buy unrationed and which, properly cooked and garnished, are said to resemble sirloin. The attractive English-born lady who supervises the distribution of this house organ, Mrs. Monica T. Crocker, Office of Personnel, has tasted them. She spent her vacation in England. She reports that whale is not bad at all; furthermore *fresh summer vegetables* made the U.K. home diet fairly satisfying. She didn't lose as much weight as she anticipated!

Words

"Exactness in the use of words is the basis of all serious thinking. You will get nowhere without it. Words are clumsy tools, and it is very easy to cut one's fingers with them, and they need the closest attention in handling; but they are the only tools we have, and imagination itself cannot work without them. You must master the use of them, or you will wander forever guessing at the mercy of mere impulse and unrecognized assumptions and arbitrary associations, carried away with every wind of doctrine."—Justice Felix Frankfurter in Reading of Statutes, Columbia Law Review, May 1947; quoted from Allen's Essay on Jeremy Bentham, in The Social and Political Ideas of the Revolutionary Era 181, 199 (Hearnshaw ed. 1931).

Economic Report

The editor of *USDA* has a baker's dozen copies of the Midyear Economic Report of the President, transmitted to the Congress July 21, 1947. This is supplementary to the similar report transmitted January 8, 1947, and is prepared with the advice and assistance of the Council of Economic Advisers and the Cabinet members. It is a report with which we should all have some degree of familiarity. After the editor's supply is exhausted, procure at 25 cents (cash) each from the Superintendent of Documents, Government Printing Office, in Washington, or borrow Library copies.

Science stories

Science Digest (Chicago) for October contains a somewhat speculative but nonetheless fascinating story about insects called "Willie and the Super-bugs", as well as an article, illustrated by raindrops with fists in them, called "The Power of Raindrops," and telling how they contribute to soil erosion, and what soil conservationists do about the problem.

Produce markets

Your attention is called to a Farm Credit Administration publication, by W. M. Hurst, entitled "Farmers' Produce Markets in the United States, Part II, Plans and Facilities." If at all interested in this subject you will find much information in this processed publication by the Senior Agricultural Engineer, Bureau of Plant Industry, Soils, and Agricultural Engineering.

Of scientific interest

Just before he left laboratory research, in 1928, the editor of *USDA* had a curious sideswiping contact with the late Sir F. Gowland Hopkins, recently deceased British scientist of international reputation and renown. It offers some curious sidelights on "Hoppies'" working methods. An account of this appeared in the July American Journal of Pharmacy under the title "F. Gowland Hopkins, Glutathione, and I." A few reprints are available for the curious who cannot see the periodical in the Library. Address the Editor of *USDA*, Office of Information, USDA, Washington 25, D. C.

Japan again

Dr. Roy Simonson of USDA Soil Survey has been in the Pacific on assignment with the Geological Survey. He was struck with the fact that farm life was more nearly normal and less touched by war than anything else in Japan, that some Japanese soil profiles were indistinguishable from those of Iowa, that the alluvial soils provide Japan's food, and that too few terraces were used in preventing soil erosion. Okinawa he found far, far worse off than Tokyo; even part of the land had been damaged. This island has an area of 480 square miles, a population near half a million, and only a fifth of the island is suitable for cultivation by the hand methods used. Its soils resemble those of Southern U.S. Its food-production problem is acute.

FAO and farmers

Early in August Duncan Wall, Special Assistant to our Director of Foreign Agricultural Relations, made a fine, human, earthy talk about FAO and the Oklahoma Farmer, in Stillwater, Okla. It is as good and readable a digest of the what, how, and why of the Food and Agriculture Organization from the dirt farmer's standpoint as we have seen. If you want a copy *write, please do not phone*, T. Swann Harding, Office of Information, USDA, Washington 25, D. C.

Rain came in Anadarko

Intending during August to create rain to assuage its own dryness, three citizens of Chickasha, Okla., dumped 105 pounds of solid carbon dioxide into a cloud 13,500 feet above their town. The rains came, but so did a sudden strong wind which blew the half-inch of moisture over to Anadarko, while Chickasha remained bone-dry. The Anadarko Chamber of Commerce rose to the occasion, however, and thanked Chickasha for the favor by wire. Next the scientists must learn how to tether the clouds from which they expect rain so as to reap the reward of their diligence and deliver the moisture where needed.

W. E. Hearn

This veteran of the soil inspection staff retired after 46 years' service. Born on a farm near Pittsboro, N. C., in 1877, he graduated from the University of North Carolina, and accepted employment the year following, 1901, in the field service of USDA's Division of Soils. He came to Washington as Inspector of the southeastern region in 1913, his last inspection having been in Loudoun County, Va., in 1947. He also stuck to the USDA, despite an offer at better salary as Professor of Soils at N. C. State College of Agriculture, Raleigh, in 1924. He was highly proficient and as highly esteemed.

Marshall S. Wright

Marshall S. Wright, Technical Assistant to the Chief, Office of Plant and Operations, was elected President of the American Congress on Surveying and Mapping at its annual meeting in Washington, August 14 and 15. The Congress has a membership of over 1,400 in 37 countries. Thus international recognition has been accorded another of the Department's scientific and technical personnel. Mr. Wright has long been associated with the surveying and mapping activities of the Department, having served in the Forest Service, the Soil Conservation Service, and the Office of Land Use Coordination. His career also includes service in the old General Land Office (now the Bureau of Land Management), Western Manager of Acrotopograph Corporation, and Presidency of the American Society of Photogrammetry. Currently he is in England attending the British Commonwealth Survey Officers' Conference, by special invitation.

Operation "Aftosa"

The former secretary of Soil Conservation Service's foreign liaison representative, now a secretary and interpreter with the Mexican-American Commission for the Eradication of Foot-and-Mouth Disease, Ernestine Martinez, recently write her former boss a colorful and animated letter about the campaign. She examined it at close range during a 4-day field trip. She commented on the tremendous job there of educating the people to rid themselves of their infected or exposed animals to eradicate the disease, and of the fact that many of the campaigners actually work at the risk of life. She saw a beautiful herd of 270 registered Holsteins doomed for the slaughter, awaiting their execution all unaware. She observed the need for soil conservation and the crudity of much Mexican agriculture. She found the villages enchanting and the villagers she encountered hospitable and friendly.

Oxygen fiends

They tell a story about the farmer who was such a fanatic on ventilation that he couldn't take a noonday nap in a pasture without knocking down two panels of fence to let the air in. If any of you happen to be fanatics on fresh air—your friends mutter "O. F." behind your back, meaning oxygen fiend—consider this reply by our leading medical journal to a physician who wrote in regarding ventilation in houses: "In ordinary homes the spontaneous leakage of air through cracks and crevices and from opening of doors is ample to maintain normal oxygen concentration and to keep the air fresh. It is desirable to ventilate kitchens and bathrooms by means of an exhaust fan in order to remove odors, excessive heat, and moisture at the source."

Blue Ridge Parkway protection

Under a joint agreement between Agriculture and Interior, the National Park and the Forest Services have combined to protect the natural features and beauty along the route of the Blue Ridge Parkway being constructed to connect the Shenandoah and the Great Smoky Mountains national parks. For details *write* Press Service for release No. 1959.

Are all U. S. farmers now rich?

You might think so, if you confined your reading to the articles in popular magazines and periodicals. But if you examine Margaret Jarman Hagood's study, Farm Operator Family Level of Living Indexes for Counties of the U.S., 1940 and 1945 (Bureau of Agricultural Economics) you will find that the level of living actually declined in about 30 U.S. counties, between 1940 and 1945. Using the average of living for all U.S. counties in 1945 as 100, the same stood at only 80 in 1940. But Mississippi, for instance, stood at only 22 in 1940 and rose to only 32 percent of the U.S. level in 1945, whereas the respective figures for New Jersey were 176 and 140. Whereas the average index was 115 in 1940, and 137 in 1945 for the Northeast, the respective figures were only 50 and 66 for the South. Prosperity is spotty and uneven. There are still poor farmers and poor counties. See Miss Hagood's processed publication, or her article in July Agricultural Situation, BAE.

Dr. W. B. Stout

Dr. Stout, who left Production and Marketing Administration to join the staff of Chief Trullinger of the Office of Experiment Stations, as mentioned in *USDA*, September 1, is widely known in land-grant college and extension circles. A native of Ohio, he received his B.S., M.S., and Ph.D. from Ohio State University, and joined the Indiana Extension Service as a livestock-marketing specialist in 1931. He came to the Federal office of Extension in April 1936, as a senior economist, serving as livestock, grain, and wool-marketing specialist until July 1942, when he became wartime Chief of the Economic Sections, the position he left September 1946 to enter PMA.

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USDA

FOR OCTOBER 13, 1947

Clearinghouse

A GROWING function of *USDA* is to act as a clearinghouse for information of interest to employees. More and more its editor sees the need for interchange of information between offices, laboratories, divisions, bureaus, and agencies. Readers like tips to interesting information, regardless of origin. When the head of an agency makes a speech full of factual information or having broad policy implications, hundreds in other agencies manifest interest. When one of our scientists or the head of one of our laboratories makes an address which gives a not too highly technical review of activities in their special field, employees generally are interested.

We ask you again to communicate with the editor of *USDA* whenever you know about or have informative material available in processed or printed form that would be calculated to interest other employees in other agencies. It may relate to administrative or personnel matters, to facts in the fields of the natural or the social sciences, to methods of addressing audiences, or of putting our ideas into shape to be transmitted by print, radio, movies, or exhibits. Do not confine such interesting and valuable material to small groups only. Let the Department know about it.

Then make suggestions to the editor as to how you think the house organ can better perform this clearing-house function. Give him tips. We can all learn many things from one another, things which both improve ourselves and make us better public servants. Write and tell us what you would like to see more of in *USDA*. Send material which you feel would interest others. Our recent notice of a popular statistical brochure had a tremendous response. Orders for the Abridged Chronology of Agriculture's Part in the War so far exceeded the supply that it is now being rerun.

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Sixty days in Japan

THE TIME, in May and June, was too short to be certain of anything. But I did get many rather definite impressions about current conditions among the farm people. I spent from two to four days in nine rural villages in various parts of the islands. Accompanying me were three of Japan's leading rural sociologists.

I was especially impressed with four things: 1. The smallness of the farms; 2. the excellent care most of the farmers take of their land; 3. the general absence of farm machinery, and 4. the strong tradition the Japanese farmers have of working together. The average-size farm is 2.5 acres. The main crop is rice. Practically all of the cultivatable land has long been used intensively and skillfully, giving to much of the farming areas the appearance of well-kept gardens.

Most of the work is done by hand though some few small machines are used rather widely. Only one-third of the farmers have a horse or a cow with which to farm. Except for trains and a few trucks, transportation facilities are limited largely to carts and bicycles. Group life among the rural people is highly organized. Most families live in hamlets that carry on a great variety of formal and informal cooperative activity, particularly the swapping of farm work and the rotation of providing food and drink for the numerous local celebrations and festivals.

(Communicated by Arthur F. Raper, Social Science Analyst, Bureau of Agricultural Economics.)

Significant discovery

SOME YEARS ago a method was found of using artificial insemination on bees. Until then it had been practically impossible to maintain pure lines of honeybees, because queens would mate with any drone. Artificial insemination provided complete breeding control. Now scientists in the Bureau of Entomology and Plant Quarantine have discovered by accident that unmated queens, when subjected to carbon dioxide gas anesthesia, lay eggs which later hatch into drone bees. This makes possible a rapid production of hybrid strains in which the parentage is absolutely controlled, and hybrid honeybees are thought to be as important to apiarists as hybrid corn to corn growers.

The carbon dioxide treatment and development of the standard apparatus and equipment required for artificial fertilization of bees have been worked out by EPQ entomologists. By artificial insemination individual drones selected by the breeder can be used for mating; the carbon dioxide treatment makes possible artificial insemination of an unmated queen even with her own son, if desired. Bee strains high in honey production, especially good for pollinating fruits and other crops, or adapted to particular climates should result. Major credit goes to Dr. Otto Mackensen, stationed at the Louisiana Agricultural Experiment Station, who discovered that the gas would stimulate egg-laying by unmated queens, and Dr. W. C. Roberts, stationed at the Wisconsin Station, who refined the apparatus for artificial bee breeding.

Farm economists meet

AT THE September 8–11 meeting of the American Farm Economic Association, Green Lake, Wis., the following papers were presented by Bureau of Agricultural Economics representatives:

The Role of Sampling in Farm Management Research, by Charles F. Sarle; Methods of Financing Related to Asset Characteristics of Farms, by Donald C. Horton; Economic Evaluation of Soil and Water Conservation, Measures and Programs, by Mark M. Regan and Everett C. Weitzell; Some Statistical Problems Involved in Types of Farm Income, by Size, by Nathan M. Koffsky; Collaboration Between Marketing Economists, Engineers, and Other Specialists, by Raymond W. Hoecker; The Objectives and Methods of Agricultural Economics, by Bushrod W. Allin.

A session of the conference was devoted to BAE's 25th anniversary with speeches by Chief O. V. Wells, and former BAE Chiefs Lloyd S. Tenny and Prof. John D. Black of Harvard. Tenny spoke on The Early Years, Black on The Years in Between, and Wells on The Horizon. BAE's first Chief, Henry C. Taylor, presided.

Out of stock

Sometimes items mentioned in *USDA* are out of stock by the time you write for them. Often our stock is small in the first place. Often *USDA* seems to reach you almost incredibly late. We do our best to see that all written orders for such material are filled and try to let you hear from us anyway.

75 years ago

IN 1872, Frederick Watts, who had assumed office as Commissioner of Agriculture when an old man, reported very briefly on the activities of the Department to President Grant. The Department's appropriation had been $197,070, of which all but $1,278.82 had been expended, but the Commissioner was sure that this remainder would cover all outstanding bills and leave a small sum to return to the Treasury.

It was in this year that James M. Swank, Chief Clerk of the Department, a position established by the organic act creating it, published his brochure on The Department of Agriculture, its History and Objects. At that time J. R. Dodge was the Department's statistician, William Saunders was superintendent of gardens, Townend Glover was entomologist, Ryland T. Brown was chemist, George Vasey was botanist, J. R. Russell was the librarian, and the superintendent of seeds was Andrew Glass. That constituted the top personnel.

The Department then had divisions of statistics and publications; seed, horticulture, and propagation; chemistry; botany; entomology; correspondence, records, and accounts; and distribution of documents; also a library and an agricultural museum. It employed some fifty clerks and specialists and about fifty messengers, laborers, and others. Qualified people could not be procured to compile and edit the Department's reports, at the prevailing salary rate of $1,200 to $1,800 a year.

The Commissioner had ruled that the chemical laboratory must hereafter devote itself wholly to agricultural matters. He said that superior experience and technical skill were too rarely recognized in Government employment, hence a dead level of mediocrity prevailed. He had earlier expressed regret that the pecuniary provision for publications was meager. The Division of Microscopy was created in Watts' term, Scottish-born Thomas Taylor being in charge.

Soybean report

THE SCIENTISTS at Northern Regional Research Laboratory made a progress report recently through Director G. E. Hilbert, who addressed the American Soybean Association at Columbus, Ohio. For one thing they have demonstrated that, contrary to common belief, the oil content of soybeans does not diminish during storage prior to processing. This finding protects farmers subject to lower returns from their stored beans if marketed on the false assumption of oil loss during storage.

The laboratory has also worked out a method for the precise determination of drying components in oils and oilseeds which should lead to a more accurate evaluation of the quality of soybean paint oils. Moreover, the laboratory's studies have assisted in improving soybean-oil paint formulations for outdoor use. A paste has been developed which contains pigments and driers so mixed that farmers can readily and economically prepare a paint from them merely by adding soybean oil; this product is now on the market. Objectionable features of the oil for paint use are overcome.

A new use developed for soybean protein is in the manufacture of an adhesive for shotgun-shell casings. Norelac, the synthetic resin developed at this laboratory as a heat-sealing agent, and made from a modification of soybean oil, went into full-scale production this July. The laboratory has worked out effective methods of fermenting soybeans by a combination of molds, yeasts, and bacteria so as to produce a high-quality soya sauce, the processing of which has traditionally been a semisecret household art in China. A process has also been developed for so fractionating soybean oil that each fraction is superior to whole oil for special purposes—one making a superior paint oil, the other an edible product suitable for high-quality shortenings. For details contact the Laboratory at Peoria, Ill.

Superior accomplishment rewards

PAY INCREASES as a reward for superior accomplishment have been awarded recently to the following employees:

Entomology and Plant Quarantine: RANDALL LATTA, for outstanding work in developing equipment for the production of thermally generated acrosol insecticides and methods of eliminating lice from military clothing and equipment. MILDRED W. SYFRIG, for rendering service which was outstanding, both as to quantity and quality, in connection with the preparation of budget estimates and supporting material and for developing a system of records for various bureau projects. HARRY H. STAGE, for administering and supervising a program of research directed at the development of practical means of protecting military personnel against insects and, in addition, for performing individual research assignments. HORACE S. DEAN, for administering and supervising an unusually complex program necessary to guard against insects which are brought in with cargoes and baggage of passengers traveling by air, and for cooperative arrangements which provided shortcuts in permit procedures and a saving of approximately $15,000 annually. HAROLD S. HENSLEY, for developing an idea for a modification in the sterilization equipment for fruit which speeded up the entire process and saved from 1½ to 2 hours on each room of fruit sterilized. JOHN A. RHEB, for assuming, in the absence of his superior, full direction of the Japanese beetle field work in his area and for carrying out the program with conspicuous success without assistance from headquarters. JAMES B. GAHAN, for outstanding research work directed at the control of malaria and other mosquito-borne diseases through the use of DDT-residual-spray treatments of entire villages. LOYD W. BRANNON, for demonstrating unusual initiative in carrying out a dual assignment of making a series of special surveys on vegetable insect pests and their control and for continuing a regular research program; in one outstanding instance an accurate analysis and prompt report of an infestation of Mexican bean beetle made it possible to have needed insecticides available to save a loss of thousands of dollars on a green bean crop.

Production and Marketing Administration: ROY R. MADDEN, for developing and establishing a procedure for ascertaining program costs within PMA and effecting its integration with the budgetary and financial operations so as to achieve improved fiscal procedures.

Farmers Home Administration: JESSE C. SMITH, for devising a ledger sheet, which made FHA account-keeping easier, promoted accuracy, and saved hours for county personnel, thereby creating confidence and goodwill among FHA borrowers. WILLIAM E. N. GARRETT, for devising a method for handling a pay-roll history file which resulted in a 50-percent reduction in the size of the file itself and also a saving in sorting and tabulating time.

Soil Conservation Service: RALPH L. DOLVIN, for exhibiting outstanding ability in the organization and direction of SCS work in his area, as reflected by the exceptional number of farm plans and soil-conservation practices established.

●

Operational research

There was much discussion of operational research at the meeting of the British Association for the Advancement of Science in Dundee this summer. Operational research is a term coined by physicist Sir Robert Watson-Watt, who invented the radar method of detecting hostile planes, and refers to the analysis of jobs, equipment, people, attitudes, working conditions and materials, which it measures with icy objectivity. Its inquiries embrace not only the obvious, but trifles usually ignored. Different types of scientific and technical specialists work in teams. The integration of knowledge resulting from pooling the contributions of such groups, even on the minutest details, produces information which not only aided the war effort enormously but, at peace, can greatly accelerate industrial and agricultural progress. Older scientists, like Sir Henry Dale, oppose because they say this method restricts the traditional freedom of research; the defenders reply, "We believe in freedom, but it must be an informed and responsible freedom. We want no isolationism." Scientists tend more and more to talk like people!

Our information service

The Public Opinion Quarterly for Summer 1947 contains an article which tells how and why the *USDA* information services were started, the factors that facilitated their growth, and gives a general picture of the Department's information activities. The editor of *USDA* has 30 or 40 reprints. Address him as indicated bottom last column pg. 4, if you want one for reference purposes; if you merely want to glance over the article this quarterly is obtainable from the Library. It is published at Princeton, N. J.

Brief but important

Changes in FS

Theodore W. Norcross, Chief of Forest Service's Engineering Division since 1920, retires at the end of this year. A native of Medford, Mass., he graduated from Tufts in civil engineering, worked for several years in Geological Survey, and entered FS as regional engineer with headquarters at Denver, but transferred to Washington as Assistant Chief Engineer in 1913, to become Chief Engineer 7 years later. For road and trail work alone he directed the expenditure of about $470,000,000 of Federal and cooperating agency money in the construction and maintenance of 76,000 miles of road and 114,000 of trail. He is author of many technical publications. He will be succeeded by Anthony P. Dean, since 1939 Assistant Regional Forester with headquarters at San Francisco, a native of Berkley, Mass., who studied at M. I. T. and entered FS as a CCC camp superintendent 1933–35. He has been Supervisor of Shasta, Los Padres, and Cleveland forests. Mr. Dean will be succeeded by James J. Byrne, who was Chief of the USDA Guayule Emergency Rubber Project at Salinas, Calif., and transferred to the Pacific Northwest Experiment Station in Portland, Oreg., in 1946. A native of Idaho, Mr. Byrne is a graduate of Montana State College who took his masters at M. I. T. He began work with FS at Missoula in 1932.

Judge Reed retires

Judge Harry D. Reed has retired as General Counsel of the Farm Credit Administration in Columbia, S. C., after 18 years of service, which began as General Counsel of the Federal Land Bank and the Federal Intermediate Credit Bank there. A native of Utah, he studied at Mercer and George Washington universities, and became a clerk in the United States Bureau of Fisheries in 1898. He has since been Mayor of Waycross, Ga., where he grew up and, in 1925, became Judge of the Waycross Circuit of the Superior Court of Georgia; declining reelection he went into the practice of law. As an authority on the subject he helped frame the FCA legislation.

Importance of libraries

Herman H. Henkle, new head of the John Crerar Library in Chicago, says that true libraries are not mere collections of books, but must mobilize the information these contain for useful purposes before they have performed their function. He believes there is tremendous duplication in research because the knowledge already acquired has not been made fully available. He cites the fact that DDT was first made and described in a German scientific paper before 1900, while Gregor Mendel's discoveries about genetics were fifty years lost because they appeared in an obscure journal. He holds that libraries must mobilize knowledge to forward science progress and prevent performance of expensive research to rediscover what is already known but hidden away from sight.

School lunch funds

Initial allocations of National School Lunch Program funds have been announced involving apportionment of $48,750,000 of the $65,000,000 appropriated by Congress for this purpose for use in the participating States, District of Columbia, Hawaii, Puerto Rico, the Virgin Islands, and Alaska. The program resembles last year's except funds for the purchase of School Lunch equipment are lacking. It is estimated that 7 of the estimated 27½ million American children in elementary and high schools will benefit this year.

Other research projects

A project to develop a plant-disease forecasting service, one to enable growers to reap greater benefits from farm woodlots, one to develop strains of dairy cattle especially adapted to the South, and another to improve production per cow for small dairymen, have been announced as assigned under the Research and Marketing Act of 1946. *Write* Press Service, USDA, for Nos. 2081, 2096, and 2101 to get details.

Research achievement

Research Achievement Sheet No. 83 (E) recounts how scientists in the Bureau of Entomology and Plant Quarantine developed residual-type DDT sprays for control (and near-annihilation) of houseflies. The sheet gives a brief narrative of the research project, plus all reference data. These sheets can be procured through E. G. Moore, Agricultural Research Administration, USDA.

New farmhouse plans

Six new farmhouse plans designed for modern rural living by USDA agricultural engineers, architects, and home economists, have been released. State Extension Services and land-grant college agricultural engineering departments cooperated. For further information see press release No. 2107, by *writing* Press Service, USDA, or write to the Division of Farm Buildings and Rural Housing, USDA, Beltsville, Md.

Harry L. Brown

Mr. Brown, who was General Agent for Farm Credit Administration in Columbia, S. C., and who served as Assistant Secretary of Agriculture from January 2, 1937, until December 5, 1939, has left FCA to become vice chancellor of Georgia's university system. He has served as General Agent since April 1941. He is a native of Georgia and a graduate of its State university. He began his career as county agent for Fulton County, Ga., and later was State Director of the Georgia Extension Service. For some months he served as assistant director of TVA's Department of Agricultural Relations.

Lawn ants-crabgrass

Dr. Theodore W. Kerr Jr., of the Rhode Island Agricultural Experiment Station, announced recently that pestiferous lawn ants can be eliminated entirely with 50-percent wettable chlordane, a material originally developed to compete with DDT, using 8 ounces to 2,500 gallons of water per thousand square feet of turf. About the same time Dr. Jesse D. DeFrance, of the same station, said that common lawn octopus, crabgrass, could be eradicated by applying a spray of 1 part of phenyl mercuric acetate per 4,000 parts of water, 10 gallons of which will treat a thousand square feet. Write the scientists at Kingston, R. I., for details.

Notes on modern living

Farmers are getting electric service in increasing numbers and they are using electricity in greater quanties. June 1947 was the highest month when more than 33,000 connections were made to REA-financed systems. The highest prewar monthly average was 23,000 connections a month, attained in 1940. The upward trend in power consumption on rural lines continues. The average per consumer on REA co-op systems in fiscal 1947 was 123 kilowatt hours per month. In 1946 the average monthly consumption was 114 kilowatt hours. In the early days of REA, consumption ran about half these amounts. Despite progress, about 2,500,000 farms and at least as many nonrural establishments such as crossroads stores, schools, and residences were still waiting for electricity at the start of 1947.

New set of color charts

Dr. E. R. Draheim, of the Division of Training, Office of Personnel, has completed a set of color charts, excellent for showing at small meetings of USDA employees of any kind, entitled "Guide to Broader Understanding and Better Public Service for USDA Employees." Barney has outdone himself on this job. Believe it or not the charts effectively present not only the history of USDA but the functions and responsibilities of each constituent agency, with a lot of incidental material destined to make better public servants out of all who see them. Contact Dr. Draheim for details.

Corn country

This book by Homer Croy, in the American Folkways series, from Duell, Sloan, & Pearce, Inc., New York City, is bound to interest you because it would be impossible for Croy even to write about the rules governing the use of the dative without being interesting. The book is highly informal, discursive, and anecdotal. It consists largely of a number of magazine articles, arranged chronologically, and interspersed with all sorts of curious information extending from prominent folk who were born in the Corn Belt, through farming there, and to the founding of the 4–H Clubs and how Home on the Range happened to be written. But it all somehow relates to the Corn Country and you'll find it intriguing, informative, and entertaining. The library has a copy.

First

The first farm-ownership insured mortgage financed by private banks under the amended Bankhead-Jones Farm Tenant Act was closed on October 3, at Americus, Ga. Congressman Stephen Pace of Georgia, sponsor of the insured mortgage provisions of the Farm Tenant Act, and Dillard B. Lasseter, Administrator of Farmers Home Administration, attended the ceremony in connection with this event.

Unique

A Rural Electrification Administration loan has been allocated for the construction of a distribution system on two islands in the Chesapeake Bay—one in Virginia and one in Maryland—connected by an overwater tie line. The generating plant is to be installed on Tangier Island in Virginia. Inhabitants of Smith, the other island, have never had power. This allocation is unique in that it represents the first time such a construction has been made on two islands in different States. More kerosene lamps are to be dimmed for good. As the islanders get their living from the water, directly or indirectly, the allocation is also unique in that no farming operations are connected with it.

Pamphlets on hospitals

The Hospital Survey and Construction Act is a summary of the law and regulations. Why We Need More Hospitals gives the story of hospital needs in this country. The Hospital Act and Your Community tells in simple terms what the programs means to States and communities. What is a Hospital System? describes a coordinated hospital system, intended to extend the scope of hospital care. Sample copies of these pamphlets are available free on request to the U. S. Public Health Service, Washington 25, D. C.

Supreme sacrifice

A team of Mexican personnel, composed of five soldiers and two technicians, engaged in the foot-and-mouth campaign in Mexico, was waylaid by an angry crowd and killed. There were no Americans present. This unfortunate incident caused suspension of operations in that immediate area but it was hoped they could be resumed in the near future.

Two new appointments

Dr. Wm. C. Ockey, a native of Utah, is the new Director of Marketing Research Branch of PMA, to include development and coordination of marketing research work in PMA with that under the Research and Marketing Act. He served with the old War Food Administration and the War Production Board. H. C. Albin is newly named Associate Chief of the Food Distributions Program, having served with USDA in several capacities for some time.

Seen in magazines

"Mad Dogs Are Killers" is the title of an article on rabies by Alfred Sinks in September Coronet. Mr. Sinks got much of his material from the Bureau of Animal Industry. The public-school system of Ascension Parish, Louisiana, had a fine write-up in the Ladies' Home Journal for September. USDA officials come in for their share of credit in helping to make Ascension Parish schools "set a goal for the Nation." The lead article in the September Country Gentleman was by Secretary Anderson, entitled "Soil Murder on the Plains," wherein he says that the plow-up in some areas there for wheat follows closely in the pattern which produced the Dust Bowl disaster. He infers that the "rape" of the prairies is dangerous. But he sees a brighter side in reseeding, dam building, and livestock.

New foreign outlets

Action has been approved under the Research and Marketing Act of 1946 to assign commodity specialists to work in this country and abroad toward stimulation of foreign demand for certain products grown here such as fruit, tree nuts, tobacco, cotton, rice, and other farm items likely to be produced in excess of domestic needs. For details ask Press Service *by mail* (please do not phone) for No. 2029 dated September 8.

Research projects approved

Administrator Meyer of the Research and Marketing Act of 1946 is now announcing projects approved for study thereunder. Two assigned to the Bureau of Animal Industry concern the combining of inbred lines of chickens to produce superior hybrids with improved growth rate, carcass quality, fecundity, and viability, and the development of meat-processing methods such as will prevent deterioration in quality and nutritive value during processing, storage, and distribution. A third, assigned to Bureau of Plant Industry, Soils, and Agricultural Engineering, deals with improved methods of refrigerating fruits and vegetables from field to consumer. A fourth, assigned to the Bureau of Human Nutrition and Home Economics, is a study of the requirements and kinds of foods consumed by different groups of our population. For details get Nos. 2048, 2052, 2057, and 2068, respectively, by *writing* (not phoning, please) Press Service, USDA. There will be other announcements. Ask Press Service about them when you write.

To Warsaw

Dr. Earl H. Bell, once a social scientist in the Bureau of Agricultural Economics, left for Warsaw, Poland, September 12 to serve with the United Nations as head of the mission for children's rehabilitation programs. Dr. Bell has been engaged in BAE's research work in farm population and rural welfare since 1939. He was a regional leader at Amarillo and Albuquerque for 3 years and, in late 1946, spent 5 months in Poland as agricultural adviser for UNRRA. The rest of the time he was in the Washington office. After he received his Ph. D. from Wisconsin University in 1931, Dr. Bell was professor of cultural anthropology at the University of Nebraska for 8 years. Dr. Bell was most recently Rural Electrification Administration's Training Officer.

Office rules

According to a recent survey by the National Office Management Association, assisted by the Prudential Insurance Company, covering 836 companies, office rules tend towards liberalization. Nearly half the companies permit unrestricted smoking by men; only 18 companies ban smoking by both sexes. By a ratio of 11 to 9 the companies favor rest periods; 228 companies allow two rest periods, and 117 allow more than 15 minutes. However, rest periods constitute one of the most controversial subjects in today's office world. Three out of four companies permit the taking of snacks, or between-meal refreshments, usually from dispensing machines.

To make it rain

Would-be experimenters must follow originator Vincent J. Schaefer's instructions to the last detail. When clouds are sown with solid carbon dioxide, snow first results, then rain, but clouds must be "supercooled" to become cooperative—i. e., their moisture must be below freezing but still liquid—and the supercooled portion of the cloud must be at least 500 feet thick. A cloud 2 miles thick can produce only 0.14 inch of rain. The pellets sown should be the size of a pea and the humidity below the cloud must also be just right.

What is a dialysate?

As this is written British scientists are carrying on a genteel, soft-spoken, summertime argument as to whether the word "dialysate" should be used to designate the portion of a mixture that remains after dialysis or the portion that penetrates the membrane. Nearly all biochemists understand the word to refer to the latter, the more diffusible part of the system. Then what should that be called which is retained by the dialysis membrane? (N. b. It is not customarily as hot in England as here, so perhaps this problem will not arouse your interest.)

Losses from animal disease

G. LaPage discussed this subject in Nature (London) for August 16, drawing on American sources, and quoting our Bureau of Animal Industry as saying that the total United States losses of animals attributable to parasites alone are $290,000,000 annually, or 69 percent of all our animal losses, while acute fatal diseases—mostly hog cholera—make up only 15 percent of the total. However, the United States has eliminated or nearly eliminated many diseases which trouble other lands, such as bovine tuberculosis, rinderpest, foot-and-mouth disease, bovine piroplasmosis, and contagious pleuropneumonia, and "these are great achievments" of enormous economic value, not to mention the resultant relief of animal suffering.

Banishing insects

If the fly has left the kitchen the song of the mosquito has become rare music on the front porch, and all *that* we owe to the forced drive of wartime research to protect our armed forces from the ills produced by biting insects. The new synthetic repellents— dimethyl phthalate, Indalone, Rutgers 612, and dimethyl carbate, used separately or in combinations—have come to reinforce good old citronella. These four horsemen for riding down mosquitos and certain other biting insects do not irritate most persons, are safe, effective, and nearly odorless. However, being organic solvents, they should not be used on synthetic textiles like rayon, on plastic watch crystals, on fingernail polish, or on other objects made of or covered with plastics. For details consult the Division of Insects Affecting Man and Animals, Bureau of Entomology and Plant Quarantine, ARA, USDA.

Handling inquiries

Secretary's Memorandum No. 1201, September 4, available from Secretary's Records Section, Plant and Operations, deals with responsibility for handling public and Congressional inquiries and incorporates into our written rules the long unwritten policy of the Department. When some member of the public asks an employee for information beyond the area of his responsibility he is obligated himself to put the inquirer in touch with the *right person without delay*, checking by phone to be sure. Employees should go out of their way to do this, remembering that people outside are not familiar with USDA's organization and therefore, when unaided, find answers to their queries with difficulty. Congressional calls should likewise be handled with dispatch and referred only to the place or person having the answer. For more detail study the memorandum.

Melbourne's farm

Melbourne, Australia, owns a farm which it uses for disposal of its sewage. It contains 25,000 acres (14,000 of them irrigated) and is devoted to livestock; some of its pastures are 45 years old and have never been reworked or reseeded. There are 17,000 fine healthy beef cattle and 7,000 sheep grazing on them. The farm fronts on the sea for 13 miles and on a main highway for 10 miles, has 120 miles of roads, 1,100 watering troughs, 800 miles of fence, and 500 year-round workmen. It carries 14 sheep to the acre. There are on the farm 88 houses, 4 schools, a recreation hall, a church, a swimming pool, football and cricket grounds, and tennis courts. It grows its own fence posts and has its own big shops. It lacks snails and flukes and represents conservation and production from waste at high efficiency.

Rural Electrification News

Again we recommend this periodical ($1 a year from Superintendent of Documents)—now the August-September issue, especially for its articles on Electricity and Rural Health, Making Light Work for You, Get the Right Kind of Light, What Types of Lamps and Fixtures, Lighting the Farm, and Fluorescent or Incandescent. See it yourself for useful information well presented.

Fire Prevention Week

Nation-wide Fire Prevention Week was October 5–11. We hope you celebrated, but not by building a bonfire. Since 10,000 Americans (3,500 of them farm folk) were burned to death last year and $562,000,000 worth of property ($85,000,000 of it on farms) was destroyed by fire in 1946, the President especially called our attention to these hazards, which are so largely (90 percent) produced by carelessness. If we keep on at the present rate we shall be burning up a billion dollars' worth of property annually by 1953, and that is a mark *not* to shoot at. We thought we'd come along after the big week and recommend that you carry the fire-prevention program out over the entire year, and then for the next ten years for that matter.

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USDA

FOR OCTOBER 27, 1947

Food Conservation

SPEAKING at Chicago, October 14, the Secretary stressed the desperate food situation in Europe, caused by flood and freezing damage to crops last winter, followed by drought last summer. He continued: "The task therefore is bigger in Europe and more difficult here. That is why we have to have food conservation in every home and grain conservation on every farm.

"The savings that can be made in the home by avoiding all waste and saving foods made from grain or produced with grain are important. But the biggest saving of grain must be made on the farm because we normally feed nearly three-fourths of our total grain output to livestock. This year we have a smaller feed grain output and a larger wheat crop. Consequently, there is a tendency to make up for the feed grain deficit with greater use of wheat for livestock feeding. That must not happen and therefore, we have to have successful meatless, poultryless, and eggless days. And by succesful, I mean actual reduction in demand if we are to take the pressure off of livestock products and remove encouragement to feed grain heavily to livestock. The consumer campaign has to succeed if the farm campaign is to succeed, and the farm campaign has to succeed if we are to make substantial savings in grain.

"The job of supplying food exports may be big for a long time to come. It will stay big until much greater progress is made in rehabilitating European agriculture and in settling fundamental political issues. * * *"

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Co-ops

If interested in the growth of farmers' marketing and purchasing co-ops, see estimates of such growth by Farm Credit Administration in release No. 2146; procure by *writing* Press Service, USDA, Washington 25, D. C.

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Isotopes

WE HAD BETTER polish up on isotopes, as the USDA is bound to become a channel of information on their use in agriculture, now that the Atomic Energy Commission is supplying them for research. For the Oak Ridge Plant makes possible a sufficient quantity of isotopes to fill all reasonable needs. Batches millions of times greater than could be produced before the advent of the atomic energy furnace (the pile) can now be made.

A typical atom is made up of a heavy and proportionately enormous center called a nucleus, around which one or more infinitely smaller packages of energy called electrons rotate in orbits, something like the planets do around our sun. Electrons are really negative electrical charges, yet they are the very core of what we know as matter. The simplest atom, hydrogen, has only one electron, whereas uranium has 92. The simplest nucleus contains only a positive electrical charge called a proton and another particle with no electrical charge called a neutron. But a more complex element, like iron, has 26 protons and 28 neutrons in its nucleus.

When atoms are bombarded with high-speed neutrons an occasional nucleus of one of them absorbs a neutron. An "isotope" of the original element, whether carbon, phosphorus, or iodine, is thus formed. The substance remains exactly the same chemically and biologically, but its weight is different. Many isotopes are quite stable, but others are very unstable, their nuclei spontaneously throw off radiant energy similar to X-rays, hence they are radioactive. Many isotopes exist in nature; numerous others have been made by scientists who often produce more than one isotope of the same element. But neutrons were mighty hard to secure until the Oak Ridge pile began to provide a constant source of these minute bullets, and isotopes were manufactured as a byproduct of the atom-bomb process.

The prices of these isotopes will range from $1.10 to $50 a unit, as compared with a million dollars each, in some cases, before the war, and when available at all—for most of them could not then have been made at any price. Isotopes can be diluted almost unbelievably and it is still possible to trace them by the use of suitable detectors. The sulfur isotope can be diluted with stable common ordinary sulfur in a ratio of one-trillionth to one, and still be traced by its radioactivity. The isotope of carbon with atomic weight 14 (ordinary carbon weighs only 12 on this atomic scale) can be mixed in dilution of 1 to 10,000,000 parts of the ordinary carbon and it can still be traced.

It is carbon isotope 14 which promises to solve the great basic agricultural mystery, that of photosynthesis, the process by means of which plants synthesize their food and store solar energy. Isotopic phosphorus 32 is likewise important to agriculture since it can be traced when used for plant fertilization, in order to tell just what the plant does with it. Isotopes will also be very useful in medical and nutrition studies for, when introduced into animal bodies, their migrations can be recorded accurately by their energy emissions.

If such an isotope is made to form a part of sugar, for instance, the sugar can be traced throughout the complicated action by which food energy is converted into muscular work. Naturally the nutrition of cattle and of crops can be studied far more intensively and intelligently with this new tool in the farm research worker's arsenal.

(As good and also as popular an accurate book as you can get on this subject is Atomic Energy in Cosmic and Human Life by George Gamow; procure from library or bookseller. It may puzzle you a bit, but remember that less forbidding books are usually inaccurate and this one is blest with brevity too.)

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Blue lupine

Research Achievement Sheet 82 (P), available from Agricultural Research Administration, USDA, tells how the introduction of blue lupine and its establishment here by Federal-State plant scientists, at a cost of approximately $15,000, gave us a soil-conserving crop worth 4 million dollars annually, in terms of its seed and its value as green manure.

Painting wood

Those who engage in this activity as a recreation or vocation may find of interest a new Forest Service publication, Wood Properties and Paint Durability, available from Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 10 cents a copy—*do not send stamps.*

We were wrong!

IN *USDA* for September 1 and 15 we advertised a document entitled "An Abridged Chronology of Agriculture's Part in the War." It originated in our war work out of a reference list of actions taken by, or changes in the structure of, the Department of Agriculture, put down in the order of their happening, May 1940 until October 1945. If the Department was implicated, the list shows what happened and when it happened, not everything, but the most important things. Finally, Dr. Gladys L. Baker of the Bureau of Agricultural Economics cleared and corrected the list, and we offered it to all who might want to file the document for reference.

The only trouble was that we had insufficient copies and the stencil got tossed away by pure accident. Actually the document used to be No. 3 in the *USDA* series, it never seemed exceedingly popular, and we had decided to discontinue it. But we had far more requests for it for ultimate file purposes than we had copies to deliver. Now, through the kindness of typists who simply added the job graciously to their regular work, the stencil has been recut and we have rerun the document in sufficient quantity to supply requests, if you'll please *write in* again. Let even the little secretary who requested the "Abridged Chronology of Agriculture's Spartan Award" write in again. (Life is rugged here at times, but there is no Spartan Award.)

To get this finally corrected document, Abridged Chronology of Agriculture's Part in the War, for file and reference purposes *write, please do not phone,* T. Swann Harding, Office of Information, USDA, Washington 25, D. C.

Ladejinsky reports

W. I. LADEJINSKY, Office of Foreign Agricultural Relations, who was assigned to the General Headquarters of the Supreme Commander for the Allied Powers, has participated in analyzing Japan's farm ills and prescribing some remedies. Soil tilling has been an onerous and unprofitable activity for Japanese farmers in the past because of intense pressure of a large farm population (47 percent of the total) upon a small arable area, plus difficult land tenure conditions.

Agriculture is Japan's principal economic activity. Because of an inequitable tenure system, 28 percent of the farmers owned no land and had to rent, and 40 percent owned so little that they rented some to supplement their own holdings. Tenure was precarious, rents were high. The Japanese Government recognized this condition, and realized that tenants usually could not profit sufficiently to supply their exceedingly frugal needs, but its efforts to better the situation were unenthusiastic and unsuccessful.

Abolition of all tenancy was neither feasible nor desirable. But Ladejinsky and other experts recommended a policy that would enable tenants to become owners, and which would also revise and improve farm-tenancy practices. Purchase of considerable land from landlords for resale to tenants was recommended on terms which would not be burdensome, but designed to strengthen the purchasers' new enterprises. Suggested improved tenancy practices include written long-term agreements with fair cash rentals, compensation for improvements in cases of lease termination, and reasonable credit facilities.

Four-legged factory

NO MATTER what a cow is to poets, to dairymen it is a four-legged factory for converting grass and grain into milk and butterfat. Moreover, dairymen are in constant search of means to improve the efficiency of their milk machines, and research scientists try to help them. Scientists have found that cows can be hopped-up into high production by being fed thyrolactin, iodinated casein, thyrocasein, iodinated protein, or thyroprotein—they are all the same thing, a substance formed by the chemical action of iodine on casein.

This synthetic chemical is not extremely expensive and, when fed to dairy cows, it has the same effect as injections of thyroxine, the active principle extracted from thyroid tissue. It boosts the milkflow and the butterfat production and, unless the feed is increased, the cow will literally start turning herself into lacteal fluid. Under treatment the cow's heart beats faster, she lives faster, she eats more, and she may give 40 percent more milk, though 20 percent is a likelier average, and she also puts more butterfat into her milk than before.

Maybe by living faster she will die younger; it is too early to tell yet. But maybe a short life at high production would be more profitable—at least to the dairyman. Obviously the treatment would complicate herd testing; we can only hope it would not impart an harassed look to the serene, benign bovine countenance to which we are accustomed. Our dairy research workers are now experimenting with the method to see whether it does in the long run as well as it seems to do in short runs.

Farm data

AT THE START of 1947 there were 27,550,000 people on our farms, 2,360,000 more than in January 1945, when our farm population hit its wartime low, but 2,719,000 fewer than in 1940. About 1,250,000 more men returned to farms from the armed forces during the past 2 years than had left farms during the same period to go to war. There were also 773,000 more births than deaths among farm people since 1945, the 1946 farm birth rate being its highest since 1929. Also more people moved to farms from nonfarm areas during the last 2 years than moved from farms to town. By January 1947, about three out of four men who had left farms to go to war had returned there to live.

Agriculture's assets are now worth over twice as many dollars as in 1940; their value at the start of 1947 had reached $111,209,000,000. Their dollar value increased 13 percent in 1946 alone. Nearly half the rise since 1940 is accounted for by higher farm real estate values which have risen 74 percent during the past 7 years. Agriculture's financial assets totaled $22,077,000,000 on January 1, 1947, and farmers' other physical assets 31 billion dollars, an increase since 1940 of 34.3 percent for the former and 101 percent for the latter. Farm debt increased 160 million dollars in 1946, reversing a 20-year downward trend and farmers' nonreal-estate debt also rose. But former equities showed a big net increase, the debt increase having been far less than the increase in assets.

Last year farmers received more than 24.5 billion dollars from the sale of farm products—197 percent above the 1940 average. This all-high record was the largest in a consistently increasing series which began in 1939 and has yet to end. In 1945 the net per capita income of farm people was $743 as compared with $1,259 for nonfarmers. By the latest figures, 52 percent of rural and 96 percent of other homes in the United States have electricity; the respective percentages are 27 and 62 for electric refrigerators, 46 and 93 for electric irons, 28 and 95 for running water. Rural people are still less well off than city people in educational facilities, health services, habitability of dwellings, and many other factors constituting high living standards. (See September Agricultural Situation.)

Marketing-Research projects

FOLLOWING is the most concise possible list of research projects recently approved under the Research and Marketing Act of 1946, showing type of research, agencies that are to perform it, and number of Press Release giving details. Procure the releases you want by *writing, not phoning,* Press Service, USDA.

Virus diseases of cherries, Bureaus of Entomology and Plant Quarantine and Plant Industry, Soils, and Agricultural Engineering, No. 2117; economic studies, Bureau of Agricultural Economics, No. 2119; wind erosion and underground irrigation water, Soil Conservation Service, No. 2121; preventing insect damage to farm products used in building, PQ with Forest Products and Southern Regional Research Laboratory plus outside cooperation, No. 2144; preserving quality and increasing acceptability of fresh fruits and vegetables, PISAE, No. 2145; livestock-poultry marketing-transportation studies, Farm Credit Administration, No. 2161; domestic wool improvement, Production and Marketing Administration, No. 2162; four livestock projects, PMA, No. 2168; certified seed marketing improvement, PMA and PISAE with outside cooperation, No. 2174; improving peanut quality, PISAE, No. 2177; efficient equipment for mechanizing southern cotton production, PISAE and State experiment stations, No. 2183; bringing production of various types of cotton into line with textile-industry requirements, PMA, No. 2189; more efficient use of skim milk and whey, Bureau of Dairy Industry, No. 2192; improved methods of freezing and refrigerating milk and cream, BDI, No. 2193; reduction of young pig losses, Bureau of Animal Industry, No. 2207; better sheep-parasite control, BAI, No. 2494; consumer preference and marketing data, PMA, No. 2209; more effective means of weed control, PISAE, No. 2221.

Brief but important

Length-of-Service Award

Secretary's Memorandum 1186, February 11, provides for Length-of-Service, as well as for Distinguished Service and Superior Service Awards to employees. Ten or more years of service with USDA is thus recognized. The Length-of-Service Award consists of a miniature shield and certificate with an enamel panel of green for 10 years of service, white for 20, red for 30, blue for 40, and gold for 50. Persons intermittently employed for a total of 10 or more years are eligible; service in an agency prior to its incorporation in USDA and time on military furlough from a USDA agency also count.

Snails

Connoisseurs, epicures, and gourmets in United States and elsewhere support a lively snail export business in Morocco. The natives collect the snails around the countryside and sell to buyers who cover large areas with poor transportation, and who take great risks. Quality of the snails varies widely accordingly to weather conditions and time of collection, but the natives get pay for their "catch" before delivery. Sometimes a sirocco destroys many snails after delivery. The way of the middleman is hard, but the snails often bring $10 a pound in New York.

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COOPERATE FULLY WITH THE FOOD CONSERVATION PROGRAM

Editors

Will find material of interest in a long editorial entitled "Fashions in Medical Writing," which appeared in the New England Journal of Medicine for September 4, 1947.

Locusts in Argentina

There is a new processed publication from Bureau of Entomology and Plant Quarantine, by John R. Parker, entitled "Comments and Suggestions on Locust Control in Argentina." It is based on an original published in Spanish by the Argentinean Ministry of Agriculture. The author made a study of the locust problem at the request of the Government of Argentina.

New Assistant Administrator, ARA

Dr. Omer W. Herrmann, a native of Osceola, Nebr., and a graduate of the University of Nebraska College of Agriculture, became Assistant Administrator, Agricultural Research Administration, September 15. His job is to assist the Administrator in the coordination of research on utilization and marketing research of USDA and the State experiment stations, under the Research and Marketing Act of 1946. Dr. Herrmann did graduate work at University of Wisconsin in agricultural economics and marketing, and was awarded his Ph. D. there in 1928, whereupon he taught marketing, and research at Oklahoma A & M for 3 years. In 1931 he joined the Federal Farm Board, one of the predecessors of the Farm Credit Administration. He entered the Army in 1942, and was Chief of the food and agriculture section of Gen. Eisenhower's staff March 1944–September 1945. He next became Assistant Director, then Director, Fats and Oils Branch, Production and Marketing Administration, and United States Member of the International Emergency Food Council's Fats and Oils Committee.

Raymond J. Jessen

The new Acting Director of the Statistical Laboratory at Iowa State, the College's newly formed department of statistics, and of the Iowa Agricultural Experiment Station's newly formed statistical section, is staff-member Jessen, one of the Bureau of Agricultural Economics group which designed the Master Sample. He succeeds recently retired Prof. Geo. F. Snedecor. A graduate of the University of California, Jessen took his doctor's degree at Iowa State. He has been outstanding in the work of the Statistical Laboratory since he joined its staff in 1938, has been statistical expert on several governmental foreign missions, and has designed numerous sampling surveys.

Behavior of isotopes

An atom is held together by tremendous energy. But if its nucleus can be smashed or splintered, using millions of electron-volts, that energy can be released. However, certain atoms are rather overpacked with energy and release it spontaneously; such are radium and plutonium. Synthetic isotopes also have extra energy packed into them which they release spontaneously. Their "shelf-life" is measured by the time it takes them to lose half of this radioactivity. It takes carbon 14 some 5,100 years to do this, hence it can readily be stored, but radioactive iodine has a "half-life" of only 8, and radioactive phosphorus of only 14.3 days, so new stocks must be made constantly. Isotopes have to be shipped in shields to protect handlers from their radiations. Lightweight shipments can be made of radioactive phosphorus, sulfur, and calcium isotopes, because they emit only "soft" beta rays, but materials like radioactive iodine, which emit powerful gamma rays, require lead shields weighing 50–100 pounds, while cobalt emits such powerful gamma rays that even a small quantity requires a shipping shield weighing 1,600 pounds!

Termite control

Soil-poisoning as an auxiliary measure to primary termite-control methods of a structural nature is the subject of Press Release 2334, available from Press Service, USDA; *write,* please do not phone.

Research program policy

The following summarizes program policies under the Research and Marketing Act of 1946 and is by Administrator E. A. Meyer: "We believe that projects should represent new lines of activity within the various fields of work, or activities where substantial expansion is clearly needed. We believe that the research should be practical—that it should deal with problems which producers and industry face now or will face in the immediate future. We want our work to yield results which can be immediately put to profitable use. We intend to concentrate our efforts so as to do an effective job in a limited number of fields rather than scatter them over a multiplicity of different problems. Finally, we want to make the first order of business the finding of new and expanded markets for those crops which now, or in the immediate future, threaten to be in surplus. We feel that the Department's emphasis can best be placed on marketing and utilization research, leaving major responsibility for production research to the States."

Readability again

Wallaces' Farmer and Iowa Homestead has made another readability test on its own articles, using the Rudolph Flesch index. See Donald R. Murphy's lead article on How Plain Talk Increases Readership 45% to 66%; in Printers' Ink, September 19.

New Research Achievement Sheets

No. 80 (C) tells how the quality of turpentine and rosin was improved by new methods developed by USDA scientists, research valued at 18 million dollars which it cost only $182,000 to perform. No. 81 (C) tells how our scientists improved the process for making synthetic rubber, the research costing $40,000 and being worth 10 million dollars a year. Procure these sheets from the Agricultural Research Administration, USDA, Washington 25, D. C.

New science mags

The 102-year-old Scientific American has been purchased by The Sciences Inc., which plans to remodel it substantially. The American Institute of Physics will soon start to publish a new science periodical. Both magazines will seek to attract the large groups of potential readers who know that science is too abstract and abstruse to be delivered in sugar-coated pills—the gasping-asthmatic style of scientific writing. The first magazine will be written by journalists trying to think like scientists, the latter by scientists trying to write like journalists. The editors of both will seek to avoid the esoteric technicality of the pure science journal and the patronizing air of writing down to readers with limp wit and small talk. We shall see what we shall see.

Research-marketing

A Foreign Trade Advisory Committee has been appointed to make recommendations on foreign-trade aspects of commodity projects under the Marketing and Research Act of 1946; it will also advise the Department, the National Advisory Committee, and the various commodity committees. If interested in the new committee's membership *write* Press Service, USDA, and ask for No. 2215.

Survey

If interested, write for a copy of Radio Listening Analysis; address Extension Director P. E. Miller, University Farm, St. Paul, Minn.

Citrus fruit import ban

Additional species of citrus fruits that might introduce dread citrus canker disease were prohibited entry into the U. S. effective October 25. For details procure release No. 2148; *write* Press Service, USDA, Washington 25, D. C.

Morse Salisbury

This former Director of Information for USDA, for UNRRA, and for the International Emergency Food Council, is now Director of Information for the Atomic Energy Commission.

Carl A. Gustafson

This is the new Assistant Chief for fire control, Forest Service. He is a native of Minnesota who graduated from the University of Idaho in 1927, and later won a scholarship and took his master's degree at University of California in 1929. He worked as a forest ranger in Wasatch National Forest, Idaho, in 1927, and returned to it in 1930. He was staff assistant in fire control with the California region, and later Supervisor of Klamath National Forest in California, and became Supervisor of Plumas National Forest in the same State in June 1945, from which assignment he comes to Washington.

Rutin

The International Medical Digest for August contains an excellent documented review on "Rutin in Capillary Fragility" in its Symposium Section, beginning pg. 119.

Hail to the Library!

Chronica Botanica, Vol. 11, No. 1, issued Summer 1947, bears the following introductory notation: "This the eleventh volume of Chronica Botanica is dedicated to the Director and Staff of the Library of the United States Department of Agriculture, in recognition of the many services rendered by this inspired group, and particularly in appreciation of their establishment of that most useful and timesaving tool, the Bibliography of Agriculture." Take a bow, Library staff, while we cheer.

Hitch-hiking phones

The first specific local contract for hitch-hiking telephones under the basic agreement between Rural Electrification Administration and American Telephone and Telegraph was recently approved. It's between the San Bernard Electric Cooperative of Bellville, Tex., and the Southwestern Bell Telephone Company. The contract provides that the telephone company will rent some of the co-op poles for a dollar a year each and pay the cost of attaching its equipment to the power lines. As a result, a substantial number of farms in three Texas counties west of Houston, members of the co-op, will be able to talk over the power lines with almost any other telephone in the world.

Directory of Personnel

The Office of Personnel has issued a directory arranged by subject matter and listing persons responsible for particular phases of its operations. Copies of this have been sent to your personnel officers. Consult the directory and find the right person before taking matters up with Personnel. Washington employees, phone Ext. 5965 when in doubt.

UNESCO and YOU

This is a State Department pamphlet containing questions and answers on the how, what, and why of *your* share in the United Nations Educational, Scientific, and Cultural Organization, with a Foreword by Milton S. Eisenhower. If you want a copy *write* T. Swann Harding, Office of Information, USDA, Washington 25, D. C.

Did you know—

That washing or rinsing rice before and after cooking is unnecessary and also destroys much of its nutritive value? That medium-grey or buff paint lasts considerably longer than white, while the most durable paints are dark, like red barn paint? That the average American farmhouse is over 50 years old? That soap not properly rinsed out of clothes makes a brownish stain resembling iron rust when the clothes are ironed? (To remove such a stain wash over again with soap and then rinse thoroughly.)

Harry Harlan

The late Harry V. Harlan, the only man in history who devoted his entire working life to the study of barley, completed his book, One Man's Life With Barley, just before he died. It will be published as a special issue of Chronica Botanica (Waltham 51, Mass.) It has a foreword by his longtime coworker, Mary Martini, also recently deceased. Dr. Harlan entered the USDA at the invitation of Mark Carleton and was assigned to barley; he headed the barley group in the Division of Cereal Crops and Diseases. You will find some material about him in The Land, Summer 1947, Vol. VI, No. 2, pp. 197–204.

Science in farming

This, the current Yearbook of Agriculture, drew heaps of favorable comment from all over, but Editor Stefferud's favorite was a joint congratulatory letter sent the Secretary by the Atlantic County (N. J.) Board of Agriculture, to compliment USDA for producing the book and saying: "It is unfortunate that not every farmer in the county can have a copy. It would serve as a reference and would help to build the esteem of all farmers for their Department of Agriculture. Please accept our sincere compliments for a very fine job."

Tanning materials

An item based on work by Jerome G. Rogers, Bureau of Agricultural and Industrial Chemistry, on alternative sources of tanning materials as the American chestnut vanishes in limbo had wide circulation and was observed in Western Livestock Journal, Breeders Gazette, The Stockman, Hide, Leather and Shoes, and possibly turned up elsewhere "unbeknownst."

Foot-and-mouth virus

A group of prominent international research scientists, including Dr. I. A. Galloway, of the Virus Research Institute in England, Dr. H. W. Schoening of Bureau of Animal Industry, and Drs. Fernando Camargo, Alfredo Tellez Giron, and Jose Figueroa of Mexico, recently made a trip through the foot-and-mouth-disease-infected areas of Mexico, after 4 days of discussion and consultation. Drs. Schoening and Galloway also attended an international conference on standardization of foot-and-mouth-disease vaccines in Bern, Switzerland, in late September. The Virus Research Institute is carrying on research study of virus sent from Mexico, the work being under Dr. Galloway's direction. Further intensive research is planned in several countries.

Former Secretary Hyde

Arthur M. Hyde of Trenton, Mo., died October 17 in New York City. He was Secretary of Agriculture from March 5, 1929 until March 4, 1933, following William M. Jardine and preceding Henry A. Wallace.

Commodity Exchange Authority

If interested in the history and accomplishments of this USDA regulatory agency read Twenty-Five Years of Future Trading Under Federal Act by its Administrator, J. M. Mehl. Write, *please do not phone,* Press Service, USDA, and ask for No. 2125.

The grapevine

The informal out-of-hour Farm Credit Club's "Grapevine" is a shining example of how good and morale-building such small, processed house organs can be. The September 24 issue humorously depicts FCA's wanderings, via a clever drawing. More seriously it reports the sudden and lamented death of William Kenneth Watt, an FCA employee since 1933, who joined the Washington office as a loan analyst a year later, and who was Assistant Director of the Surplus Property Disposal Section when he died. He was well known and thought of throughout the farm credit system.

European affairs

The editor's State Department cousin recently drove 960 miles through 5 countries from Copenhagen to Paris. He wrote: "There was no rain in western Europe for more than 9 weeks and everything was entirely burned up. Fields for the whole distance down to Paris were left just as they were in early Spring and nothing—absolutely nothing—grew more than a couple of inches. What in the world these nations are going to do this winter is beyond my guess. When the winter wheat crop was sown, fall 1946, there was a little rain and then a quick freeze. On top of this came the worst winter in 45 years and hence no grain crops this spring, 1947." The worst drought in 90 years followed. These people must be fed or else and "the 'or else' is merely that people who are hungry can very easily swing over to other ideas of Government."

Cold Storage Committee

A Cold Storage Advisory Committee has been named under the Research and Marketing Act of 1946. For details and membership get No. 2227 from Press Service, USDA; *write,* please do not phone.

Progress

A progress report on the first research project approved under the Research and Marketing Act of 1946, the Emergency Corn-Drying Project, may be found in Press Release No. 2222; *write* to Press Service, USDA, for it.

Foot-and-mouth

In *USDA* for September 29 we mentioned the appointment of H. Nelson Elliot to survey the foot-and-mouth- quarantined areas in Mexico for evidences of spread among wildlife. The problem of susceptible wild animals has been found less grave than was anticipated. For details *write* Press Service, USDA, and request No. 2219.

Extension Service Review

This illustrated monthly issued by Extension Service has considerably perked up in recent issues; always informative it is now becoming saturated with reader appeal.

This is No. 22

By mistake we put No. 20 on the October 13 issue of *USDA;* it should have been No. 21; this is No. 22.

October 27, 1947 VOL. VI, NO. 22

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USDA

FOR NOVEMBER 10, 1947

REA Today

AS MORE and more farmers get electric power, the greater is the insistence of those still unserved that they, too, be given the opportunity to modernize their farms. This is indicated by the large volume of applications for electrification loans being received by the Rural Electrification Administration.

The REA recently estimated that approximately 400,000 farms, the greatest number in any 1 year, received central station electric service from either REA co-ops are power companies during the 12 months prior to June 30. Despite this rapid progress, however, the rural electric cooperatives, faced with demands of unserved farmers in their areas, have been applying for new loans at a faster rate than REA has been able to make allocations. The backlog of applications reached nearly $300,000,000 by the end of the fiscal year, nearly one-third higher than at the beginning of the year, and since July 1, new applications have been coming in at the rate of about a million dollars a day. The REA loan authorization for the year amounts to $225,000,000.

REA recently made its annual estimate (required by law) of the number of unelectrified farms in the country and found that there still are more than 2¼ million farms without electric service. Farms without service are located throughout the Nation, with 9 States each having more than 100,000 farms unserved. Ten others have more than 50,000 unelectrified farms each.

The 1947 estimate of unelectrified farms also indicated the rapid progress made in recent years. The 400,000 connections during the year brought the total of electrified farms to 3,575,000, which is 61 percent of all farms, as compared with only 10.9 percent of all in 1935, when REA was created. The largest gains were made in areas where the number of unserved farms was greatest.

765479°—47

How to be chairman

MANY OF US are called upon in line of official duty to be chairman at meetings. What are the rules of good chairmanship? Walter Weir recently listed 15 things every chairman should know, in an article in Printers' Ink. Drawing freely upon him, and somewhat upon our own experience with meetings which lapsed into quasi-chaos because the chairman was incompetent, we'll risk telling you how to be a chairman.

Never start a meeting without a list of things there to be considered. Call this an agenda, if it makes you feel better; provide copies for those attending—or read it when starting the meeting—and keep the thing on the beam. It's curious how many attend meetings without knowing why they are there; they often sit through an hour or so of the wrong conference without realizing they should be somewhere else. Keep the meeting moving, speak clearly, and prevent the development of general hubbub. Stem aimless discussion by waving a committee at the miscreants and control the meeting at all times without stifling free discussion.

Keep speakers talking clearly and audibly, and sum up what each has said. Don't argue with the speaker—remember you're supposed to be neutral. Query him if you wish or, if you have a comment, take the floor as a participant. Don't squelch troublemakers; try to show them up for what they are and let the participants squelch them; there's more of them than there is of you. Be considerate of the participants' comfort—don't blow smoke at them until they go to sleep, or refuse to provide proper ventilation. Above all, never yourself address individuals instead of the group. Check at the meeting's end to be sure participants feel that each subject has been covered adequately.

These instructions should enable you *not* to become Chairman of the Bored.

Dairy-barn faults

DEPARTMENT SCIENTISTS find a number of common faults in dairy barns, after study of representative barns in various States, in the effort to arrive at the best combinations of building design, arrangements, sanitation, equipment, and operator technique. Very few barns, for instance, are arranged for easiest feeding. All so far studied are faulty in one or more of such features as: Location of silo and ground-feed bins; location, size, and number of hay and straw chutes; equipment for measuring and delivering feed from storage to animals.

Most 2-story barns have hay or straw chutes over the feed alleys, but seldom enough, for 1 is needed per 8 stanchions in face-out-type barns and 1 for every 10 or 12 in the face-in type, if the feed alley is wide enough. Milking time is shorter in the face-out type, but the feeding time can be so much shortened in the face-in type, by using better arrangements, that this defect can be more than compensated. Practically all stalls are too short, and many are too narrow for the convenience and comfort of the cows.

Small, inexpensive equipment devised by plain ingenuity can save much time and work in many dairy barns. In one, for instance, two pails used in cleaning cows and equipment were fastened together and carried by a short, rigid handle. This eliminated one extra trip each milking. That saved the operator 15 miles of travel a year.

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Government workers

The Bureau of the Census announced in the middle of October that the Federal pay roll had dropped by 1.4 millions *to* 2.2 millions *from* 3.6 millions since the end of the war, but the number of State and local Government employees had risen from 3.1 to 3.7 millions between the end of the war and April 1947. Over-all Government employees now number 5.9 millions (down 800,000 since the war ended) with an annual pay roll of 1.1 billion dollars. Two out of every three public jobholders now work for State and local Government; in 1940, State and local employees outnumbered Federal 3 to 1; the ratio fell to 2 to 1 during the war.

How dairy farmers can save grain

Dairy farmers with an abundant supply of good-quality hay and other roughage can cut feed bills materially by using less grain for growing dairy heifers than has been customary. Recent research by the Bureau of Dairy Industry indicates that dairy heifers get along well without grain from 10 to 12 months of age until shortly before they are due to freshen—provided they have been fed and raised properly from birth, and get all the good-quality hay or other roughage they want at all times. For details on this *write* (please do not phone) Press Service, USDA, and ask for No. 2356.

To be understood

THE SATURDAY Review of Literature continued its campaign for better writing in its October 4 issue. The article was entitled "How To Write Like a Social Scientist" and was by Samuel T. Williamson. It deserves the attention of all information workers, editors, writers, and would-be writers. It stems from the young college graduates who simply cannot write plain English and then deviates into the cases of those who say "substantial" instead of "big" or "large," and "to a substantially high degree" when they mean "much."

Other horrible examples the author has picked out of social science papers by crack specialists—"pedantic Choctaw," he calls it—follow: "Available evidence would tend to indicate that it is unreasonable to suppose" instead of "probably"; the fact of rapid deterioration of musical skill when not in use soon converts the employed into the unemployable," instead of "musicians out of practice cannot hold jobs"; and "nearly all operations in the industry lend themselves to performance by machine, and all grades of men's clothing sold in significant quantity involve a very substantial amount of machine work," instead of "much men's clothing is machine-made."

But it is impossible to give you an adequate idea of the article here. Get the magazine from the library, a bookstore, or from 25 West Forty-fifth, New York City. While you are at it, don't miss the significant article in the same issue on poor scientific writing in the press, entitled "Newspapers and the Bomb," prepared by Nine Nieman Fellows who are doing a forthcoming Macmillan book called "Your Newspaper." Finally, look up in back issues of the Saturday Review of Literature the articles, "Writers: Enemies of Social Science," by Lyman Bryson, in the October 13, 1945, issue, and "The Pudderers," by Ivor Brown, in the issue for December 7, 1946. You'll be the better for this reading.

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Industrial use of ag products

Cumann Ceimicidhe na hEireann (the Irish Chemical Association, to you) and the Dublin Section of the Royal Institute of Chemistry recently held a colloquium on The Industrial Utilization of Agricultural Products and Seaweed. Those interested will find an abstract of the proceedings in Nature (London) for September 13. Cane sugar, lactose, the carbohydrates generally, Irish fruits, casein, rayon from seaweed (very interesting), waxy starches, agar, seaweed mucilages, and the amino acids, all came up for discussion.

Versatile gas

THE ANCIENT Chinese ripened hard pears by putting them in a closed room with burning incense. But, says USDA plant physiologist Erston V. Miller, they didn't know that ethylene gas in the incense smoke caused the ripening, or that thousands of years later the same principle would be used the world over in many agricultural industries.

Early in the present century, when Florida oranges were shipped north in railroad cars heated with kerosene stoves to prevent freezing, it was noted that green-colored oranges became orange-colored in transit. Research by the USDA finally disclosed that the color change was caused by ethylene in the fumes from the stoves. This finding led to the present commercial practice of degreening citrus fruits by "gassing," and to the use of the gas instead of stoves to ripen bananas shipped when mature but green.

The citrus and banana industries of this country were the first to use ethylene for coloring and ripening fruit. Wide use of ethylene followed in very recent years. The gas now helps ripen and color many kinds of fruit; blanch celery, endive, and chicory; loosen walnut hulls for rapid husking; cure tobacco; force flower bulbs; root plant cuttings; speed up yeast fermentation; germinate seeds; defoliate rose bushes for storage; and force the flowering of pineapple plants to produce out-of-season fruit.

The discovery that fruits give off ethylene as they ripen has cleared up many agricultural mysteries. Apple scald, which caused such severe losses in storage, was found to come from the gas emitted by the fruit, and oiled wraps or shredded oiled paper, which absorb the gas, were proved effective in controlling scald. Florists have learned not to ship or store either plants or cut flowers along with apples or other fruits, because the ethylene exuded by the fruit makes leaves and blooms drop or wilt. However, rose bushes keep better in storage if the leaves are removed, and treatment with ethylene has proved an easy way to remove them. (From Food and Home Notes, Helen C. Douglass, Press Service, USDA.)

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Vegetable breeding

Vegetables Designed to Your Taste is an article in Science Digest for November (published from Chicago) that is largely concerned with the research work of our Southeastern Regional Vegetable Breeding Laboratory at Charleston, S. C., and of the United States Soil, Plant, and Nutrition Laboratory, at Ithaca, N. Y.

RMA projects

AGAIN WE list below the projects under the Research and Marketing Act of 1946 that have been approved since our last issue. The nature of the project, the agencies undertaking it, and the press release numbers giving details are given in each case. Get press releases by *mail* from Press Service, USDA.

Better farming methods for erosion control and food and feed production on characteristically steep lands in Puerto Rico; Soil Conservation Service, Bureau of Plant Industry, Soils, and Agricultural Engineering, P. R. Agricultural Experiment Station at Rio Piedras, and Federal Experiment Station at Mayaguez; 2255. Salvage of damaged timber to increase its utilization; PISAE, Forest Service, Bureau of Entomology and Plant Quarantine, and certain State forestry departments; 2262. Developing the use of agricultural products as insecticides; EPQ; 2266. Reducing food costs by developing and promoting construction of more efficient marketing facilities; Production and Marketing Administration; 2268. Developing information on plant food needs of soils and effecting better returns from fertilizers; PISAE and State experiment stations; 2279. Nematode control; PISAE and State experiment stations; 2281. To discover and develop new and improved uses—medicinal among them—for apiary products; EPQ and interested medical institutions; 2282. Development of U. S. Standards for grading processed fruits and vegetables for which none now exist; PMA with cooperation of other Federal, certain State, and outside units; 2285. Price and consumption study of tobacco; PMA and other interested agencies in USDA; 2286. Improvement of sampling methods in collecting basic farm data; Statistical Laboratory, Iowa State College; 2287. Enhancing and improving the flavor of soybean oil, Northern Regional Research Laboratory with State and private agencies; 2302. Two gum naval stores projects; Bureau of Agricultural and Industrial Chemistry; 2303. Economic effects of farm mechanization; Bureau of Agricultural Economics; 2313. To improve the quality of peanut products and find new and wider uses for them; Southern Regional Research Laboratory and other public and private agencies; 2314. Merchandizing methods of co-ops; Farm Credit Administration; 2315. Extending the use of foreign plants in U. S. crop improvement; PISAE; 2316. Determining the harmful effects of insecticides on animals and plants; EPQ, Bureau of Animal Industry, PISAE, AIC, Food and Drug Administration, and State experiment stations; 2317. Better methods of malting barley; PISAE, PMA, State experiment stations, and trade groups; 2347. New methods of measuring tobacco quality for specific uses; PISAE, PMA, State experiment stations, etc.; 2352. Improvement of market news services; PMA and BAE; 2354. Better maintenance of sugar content and quality of harvested sugar beets and sugarcane in storage; PISAE, State experiment stations, and private sugar concerns; 2355. Basic studies to find new uses for cotton; Southern Regional Research Laboratory, PISAE, PMA; 2367.

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Ag-ec world meet

The International Conference of Agricultural Economists will meet in the summer of 1949, probably in Czechoslovakia or Hungary, a less-than-full-scale meeting having been held this summer at Dartington Hall, Totnes, England.

Japanese budget work

BUDGET and fiscal work in the Japanese Ministry of Agriculture and Forestry has a great deal of the form but little of the substance of related activity in USDA. This is the observation of Kenneth A. Butler, of the Office of Budget and Finance, who was in Japan for 2 months on detail to General Headquarters to assist the Ministry of Agriculture and Forestry on their budget and fiscal problems.

Basically, their greatest difficulty is a lack of trained and experienced employees to enable them to progress beyond the elementary stage in budget work. In the past there has been no necessity for careful and complete budget work, because the Diet was subservient to the Emperor and voted appropriations as requested. Under the new constitution that became effective May 1, 1947, the Diet assumed new authority and responsibility and has requested complete estimates and justifications for all requests for funds. The staff of General Headquarters is also interested in obtaining complete program plans from the various Ministries as reflected in requests for funds.

Officials in the Ministries of Agriculture and Forestry and of Finance were amazed at the budgetary aids and procedures that are available to all employees engaged in budget and fiscal work in the USDA. They requested that material Mr. Butler had brought with him be left with them, and that additional material be supplied through General Headquarters. Many Government administrators were looking forward to the time when they could send some of their budget and fiscal employees to the United States to study in our schools, in the Bureau of the Budget, and the USDA.

Brief but important

Hog price supports

These, through March 1948, were announced in Press Release No. 2245; *write* to Press Service, USDA for it.

As others hear you

What impression do people get of you as they listen to you speaking over the telephone? Remember you have a telephone personality, just as you have a letter personality, and a variety of other personalities. How often do you stand in judgment of others on a basis of *their* telephone manners or habits? Telephone training self-taught is available for you in an outline which Charline Lynch, Division of Training, Office of Personnel, USDA, wrote for the September 15 issue of Personnel Administration (put out by Pers.). She will send you a copy if you'll drop her a line. Please do that instead of phoning in this instance, because phone calls build to awesome peaks and can interrupt work no end.

Food conservation

It is assumed that all employees are keeping up with the national food conservation campaign by radio and the press. The farm grain-saving campaign was announced, along with a fact sheet, on October 3. If you want to see this original announcement procure No. 2272 from Press Service, USDA, *by mail.*

Save hog feed

On October 13 the Secretary urged all livestock producers and shippers, commission firms, dealers, stockyard companies, auction markets, and packers to conserve corn and grain generally by eliminating wasteful methods of feeding hogs destined for immediate slaughter. This can be done without adversely affecting meat quality or violating humane principles. Excessive feeding to produce temporary weight increases or fills is unjustifiable. It constitutes economic waste.

Rhubarb to the rescue

C. M. McCay reported in Farm Research for October 1 that injury to the teeth caused by drinking lemon juice could be prevented by adding rhubarb juice in the proportions of 1 cup to 4 of lemon. The oxalates in rhubarb (spinach also contains them) tend to counteract this bad effect of the acid in the lemon juice. Certain cola drinks contain phosphoric acid and are also very popular, though they can soften detached human teeth after a 2-day soaking and damage the molar surfaces when fed to dogs, rats, mice, or monkeys. Farm Research is a quarterly publication of New York's two agricultural experiment stations.

New activities director

The Welfare Activities Committee, Joseph B. Ragan, chairman, has appointed Charles A. Cunningham—who for 4 years has been Chief of the Community Activities Branch, Office of the Secretary of War—as Director of Employee Activities, succeeding John G. Scherlacher, who resigned last June to join the faculty of University of Virginia. Mr. Cunningham graduated from the Physical Education Course at University of Wisconsin and took his Masters in Recreation at New York University.

New rubber

A new synthetic rubber has been developed by our Eastern Regional Research Laboratory and is being manufactured on pilot-plant scale; if interested, procure No. 2348 by *writing* (*not* phoning, please) Press Service, USDA.

Long-range farm policy

Statements made by top USDA officials before the House Committee on Agriculture and the Subcommittee of the Senate Committee on Agriculture and Forestry in early October should have your attention. They all outline Programs to Effectuate a Long-Range Policy of Abundance. Assistant Secretary Brannan addressed himself to Objectives and Potentials and also read Administrator Wickard's (in his absence) statement on Rural Facilities, Services, and Industries. Administrator Lambert spoke on Technological and Economic Research; O. V. Wells covered Conservation and Land Use Adjustments; Chairman Farrington of the Price Policy and Production Adjustment Committee covered Price Policy and Production Adjustment; and Secretary Anderson closed with Summary Remarks on Program and Administration. You should study this material carefully to acquaint yourself with basic policy. The numbers of the releases are: 2256, 2257, 2258, 2259, 2260, and 2261. Procure them from Press Service, USDA, *by mail only.*

Radio history

Charles B. Herndon (Radio Service) tells us that USDA's use of radio began at 5 p. m., December 15, 1920, with market news by radio telegraph broadcast from Bureau of Standards Station WWX and picked up by "hams" all over to post in post offices, county agent's officers, etc. This service was initiated by W. A. Wheeler, then in charge of market information for our Bureau of Markets. Later the Navy helped by letting us use its powerful Station NNA. By June 1921, market reports were going to 31 States and radio market news service was well launched. The present Radio Service began in a small way in Office of Information, February 15, 1926, after its incorporation therein first of the year and, by October 1926, a regular syndicated series of radio scripts covering a wide variety of farm and home information was started to some 90 stations. Sam Pickard was USDA Radio's first chief; Morse Salisbury followed him.

George L. Prichard

This is the new Director of the Fats and Oils Branch, Production and Marketing Administration, who succeeds Omer W. Herrmann, recently appointed Assistant Administrator, Agricultural Research Administration. Mr. Prichard has been in the Department since 1931, first with AAA and more recently with the Oilseed Branch of Commodity Credit Corporation; he has been Assistant Director of PMA's Fats and Oils Branch since August 1946. He is a native of Warren County, N. C., and attended the University of North Carolina.

Science and Public Policy

Volume 3 of this series is entitled "Administration for Research." The reports are prepared by the President's Scientific Research Board, of which John R. Steelman is chairman. Great Britain also is giving serious consideration to the problem of research and the scientists in Government service. See editorial entitled "Government Research and Development in Great Britain" (p. 379) and the item on "Conditions in the Government Scientific Service" (p. 392), Nature (London) September 20.

Wheat and rye goals

State 1948 wheat goals totaling 75,095,000 acres and rye goals aggregating 2,458,000 acres were announced October 2. The former figure is 4 million acres above the 1947 goal, though nearly the same as indicated plantings. The rye goal is about a half million acres more than that harvested in 1947. Get release No. 2242 for details; *write* Press Service, USDA.

USDA and farm safety

M. L. Wilson, Director of Cooperative Extension Work, USDA, delivered a meaty talk entitled "Contributions to Farm Safety by USDA," before the Farm Safety Sessions, 35th National Safety Conference and Exposition, Chicago, October 7. Procure copies of the talk from his office to get details on this important subject.

Recent research achievements

USDA's **document No. 6, Important Recent Achievements of Department of Agriculture Scientists, July 1, 1947, is in new supply if you want copies. This 26-page report covers recent achievements in Agricultural Research Administration (except some bureaus too shy to speak up), Soil Conservation Service, Forest Service, and Bureau of Agricultural Economics. It consists of short, popular items on a variety of topics. To get copies write,** *(please do not phone)* **T. Swann Harding, Office of Information, USDA, Washington 25, D. C.**

Cows like wood molasses

C. R. Lockard of the Southern Forest Experiment Station says that molasses made from cull hardwoods shows promise as an inexpensive supplementary feed for contented cows. The Alexandria Branch of this station has fed the molasses, made at Forest Products Laboratory from wood of mixed species of southern oak. The cows like it in their cottonseed cake—prefer it even to good range forage. The Mississippi Agricultural Experiment Station is making tests of the molasses' food value. A plant handling 25 cords of cull hardwood daily could produce about a tank car of molasses in that time. Use of cull hardwoods for this purpose would enable owners to turn a profit and would give the southern livestock industry a badly needed source of cheap carbohydrates.

Farms lacking juice

Two and a quarter million United States farms still lack electricity. Rural Electrification Administration gives details, State by State, and a great deal of other information relative to its work in a fact-packed Press Release numbered 2239; *write* Press Service, USDA, and ask for it if interested.

Penicillin in mastitis

The article on Penicillin in the Treatment of Infectious Bovine Mastitis, by Dr. C. S. Bryan of Michigan State College, in the American Journal of Public Health for September, may be of interest to some of our personnel.

Women's work clothes

The really outstanding achievement of clothing specialists of the Bureau of Human Nutrition and Home Economics in perfecting 34 designs for women's work clothing is the subject of Research Achievement Sheet 79 (H), available from Agricultural Research Administration, USDA. This investigation, resulting as it did in an entire new line for the commercial clothing industry, produced designs for dresses, aprons, coveralls, and other garments that provide freedom in work activities, comfort, time-saving, safety, attractiveness, and convenience. Clothing specialist Clarice L. Scott prepared the account of this work for the sheet.

Meat inspectors

"Did you know that you should examine the side of a mackerel, the backbone of a halibut, the eyes of a cod, to determine its degree of mortuary decomposition? Did you realize that the pressure due to forcing meat through a chopping machine too fast, or the chopping of pieces that were too large, or the piling up of meat on a counter during trimming, could produce appreciable increases in temperature, favorable to decomposition? Would you have imagined that a tactful campaign of education could reduce the average bacterial content of chopped meats in a city from 10,000,000 to 200,000 per gram?" Editor of American Journal of Public Health (September) after he interviewed a Springfield, Mass., State meat inspector.

FHA statistics

Farmers Home Administration has provided a factual year-end summary of its activities, including loans, collections, and outstanding debts. Get it *by mail* from Press Service, USDA; ask for No. 2254.

Health insurance, etc.

In Office of Personnel Memorandum No. P-651, dated September 22, Director T. Roy Reid sought to clarify certain issues that have arisen in connection with group health and hospitalization insurance for USDA employees. If interested, ask your personnel officer to let you see the memorandum. For one thing, employees may be designated to collect for such coverage, provided this does not interfere with their official work.

Stanley Andrews

Mr. Andrews, Office of the Secretary, who for 3 years has been working on various international aspects of the food-supply program, has resigned to join the staff of the Arkansas Democrat in Little Rock. He has also been Assistant to the President of the Commodity Credit Corporation and General Agent of Farm Credit Administration in New Orleans.

Semantics

The USDA Graduate School, on request from interested persons, is now offering a course in general semantics, a science of evaluation and an explanation of and training in the application of scientific methods of thought to the solution of current problems. The basic text is A. Korzybski's Science and Sanity; the instructor is Capt. J. A. Saunders (ret.). For details consult Graduate School.

Bulb-stem nematode

The bulb or stem nematode, long thought to be a single species attacking many different field crops, ornamentals, and other crops, has been found by USDA nematologists to be more than one species. For details procure release No. 2278 from Press Service, USDA, *by mail*.

New market news offices

A Dairy and Poultry Market News office has been opened in Cleveland with L. C. Giffen in charge. Giffen transferred from Cincinnati where he is succeeded by C. C. McClure. An office has also been opened at Madison, Wis., with C. D. Hadley in charge; he transfers from Detroit and is replaced by J. P. Kauffmann, formerly of New York City.

Raphanin

This is the name of the antibiotic Drs. George Ivanovics and Stephan Horvath of the University of Szeged, Hungary, found in radish seed, but the material as at present prepared has toxic side-effects.

Research Achievement Sheets

USDA somehow missed two of these sheets issued by Agricultural Research Administration, USDA, when they came out last year. For your belated information No. 69 (P) relates to work of our scientists in developing chemical dips to prevent sapstain losses in green lumber and No. 70 (H) to the improved processes for the home canning of low-acid foods developed by our home economists. Full details will be found in the sheets. As usual the work turned out to be worth tremendously more than it cost in money.

Your Farm Lease

This Miscellaneous Publication No. 627, was issued by Extension Service and Bureau of Agricultural Economics; it is in the form of a simple folder which provides all the essentials of a good farm lease.

Foreign economic policy

A State Department pamphlet on Problems of U. S. Foreign Economic Policy, Publication 2750, Commercial Policy Series 104, September 1947, offers good material on this subject. Procure from Division of Publications, Office of Public Affairs, Department of State.

REA

There is an admirable and highly informative piece in the Economist (London) for September 13, 1947, regarding Rural Electrification Administration. It is entitled "Power on the High Plains" and is written in the superb style so characteristic of English periodicals. Emphasis is on the "prosperity, happiness, and freedom from exhausting toil" REA has produced for so many. The Highline Electrical Association, Holyoke, Colo., gets the spotlight. Library gets this periodical.

Pectin

Drs. Henry Welch, Harold L. Hirsh, and S. Ross Taggart of the Food and Drug Administration and the Washington, D. C., Health Department, have found that the administration of pectin slows down the rate at which penicillin, streptomycin, and other drugs escape from the body, meaning fewer "shots" or doses required by, and less disturbance of, the patient.

Sugar

The University of California scientists who have synthesized sugar now announce that they were wrong in regarding glucose phosphate as the basic substance of which all complex sugars are constructed or that phosphate is essential to the process. They can now synthesize complex sugars without using either glucose or phosphates.

The word is "psychroenergetic"

Become acquainted with it. Be not intimidated by its length. "Psychro" signifies relating to cold, i. e. the heat content of the air; and "energetic" is not only what you are *not* when the humidity is high, but also the study of the conversion of feed into bodily heat and energy. Fundamental research on the effect upon farm animals of heat, cold, humidity, ventilation, and other conditions is to take place at the Psychroenergetic Laboratory, Columbia, Mo., where USDA will work with the Missouri Agricultural Experiment Station. The laboratory will be under the joint supervision of J. Robert McCalmont and Harold J. Thompson of USDA and the University of Missouri, respectively. A typical problem will be to find out why cows give less milk during winter cold snaps and how farm buildings can be modified to maintain the milk flow unimpaired. Read all about it. Get No. 2373 from Press Service, USDA, *by mail*.

Varnish from the sugar bowl

We mentioned this singularly durable coating for wood or metal, made from a derivative of common table sugar, in *USDA* for July 21. If interested in more details get No. 2368 from Press Service, USDA, *by mail*.

New cattle feed source

The possibility of providing a new source of cattle feed by the recovery of waste pulp and protein from potato starch factories is outlined in release No. 2366, available *by mail* from Press Service, USDA.

In October magazines

The following should be of high interest to USDA workers: More Hospitals . . . Mississippi's Answer, Ladies' Home Journal; Reach for an Apple, Seventeen; The Farmer Goes To Town (a best bet—don't miss) Fortune; War Against the Insects, by Lucia Brown, formerly of Production and Marketing Administration, This Week Magazine, October 5. What's New in Home Economics comments that our new Yearbook "is a publication with which home economists should get acquainted." Finally Science Service's Science, released October 5–11, had a bang-up illustrated item on New Model Farm Animals, dealing with USDA research.

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FOR DECEMBER 8, 1947

World food conditions

ADDRESSING the Twenty-fifth Annual Agricultural Outlook Conference in Jefferson Auditorium, November 4, Chief Hazel K. Stiebling, of the Bureau of Human Nutrition and Home Economics, discussed the World View of Nutrition. She gave sufficient background for us to understand why we must eat less and waste less in order to prevent starvation elsewhere.

The world's per capita food consumption this coming year will be 2 or 3 percent lower than last, but nearly 10 percent lower than prewar; and even then half the people in the world had diets averaging fewer than 2,250 calories per person per day. While in the U. S. last year we ate as much as 15 percent above prewar levels, consumption in many countries was as low as 30 percent below prewar. This year the world's production of food grains may run 1 or 2 percent above last, but its production of coarse feed grains will decline at least 5 percent, perhaps as much as 10. Hence the production of meat and dairy products, fats and oils, will all tend to decline.

The feed-crop shortage is the primary factor aggravating the serious food situation. It is hard to measure the exact extent of the feed shortage because grains have such diverse alternative uses and flow into so many channels. But when they are short, there is always a strong tendency to sluice food grains into the feed-grain channel. Meanwhile the world's population has increased 15 to 20 millions, its food reserves are smaller, people in deficit countries are in worse shape to withstand privation. In surplus countries, industrial activity is at a high level, which means higher incomes and great pressure on food supplies, the temptation being to export less and eat more at home.

Production in the world's food-deficit areas is below what it was in 1946. This is true both in Europe and in the Far East. Only if food-surplus countries export food, especially grains, more extensively than last year can this deficit be ameliorated. But to offset the total shortage in Europe would take 6 million tons of grain more than was shipped in 1946, more than we can hope to ship this year. Yet we must ship enough to maintain Europeans at least at their 1946 level of subsistence.

Grains are basic and the big decision is whether they are to be used primarily for feed or food. Furthermore, turning grain into pork, beef, poultry, and eggs is an expensive procedure in nutritive output. It is people versus livestock, bread versus meat. The urban population of Europe as a whole subsists at a food level almost one-fifth below prewar. The United Kingdom, using nutrition science, disciplined distribution, and sound food management throughout, sustains its population at just the level to maintain health on far less than we in this country eat.

But most of Europe is far worse off for food than the United Kingdom. Their populations as a result show faulty growth, average weights below the health-maintenance level, increased disease and infant death rates. Yet this world of famine and near-famine can be turned into a world of food-plenty whenever we are disposed to attack the food problem and solve it as wisely and relentlessly as we pursued those measures necessary to enable us to win World War II.

Honor Awards Program, Etc.

With this issue of USDA there is being distributed to you a special statement on the Honor Awards Program of the Department of Agriculture, the ceremonies held in connection therewith November 12, and related personnel matters.

Government research

THE GOVERNMENT of the United States conducts or finances more than half of all the scientific research and development in the Nation. Such expenditures during 1947 will exceed 600 million dollars; private outlays during the same period will total somewhat less than that. There are 30,000 Federal scientists using facilities and equipment worth 2 billion dollars, their investigations ranging from new varieties of disease-resistant tomatoes to the causes of cancer and the esoteric mysteries of atomic energy. Through contracts and other fiscal devices the Government also finances more than 400 million dollars worth of industrial and university research annually. The Nation's total expenditures for research and development rose from 345 million dollars in 1940 to well over 800 millions in 1945.

The Government carries on its research in hundreds of installations scattered through the country and operating under 52 more or less independent bureaus located within its major agencies. The Department of Agriculture alone has nearly 200 installations here and abroad, some employing only 2 or 3 scientists, some 100 or more. The principal other agencies engaged in research are Commerce, Interior, Navy, War, Public Health Service, Food and Drug Administration, National Advisory Committee for Aeronautics, Smithsonian, Atomic Energy Commission, Public Roads Administration, Federal Communications Commission, Veterans' Administration, Office of Rubber Reserve (RFC), and the TVA.

The Department of Agriculture is the major civilian research agency of the Federal Government. The scope of its research program, the numbers of personnel involved, the wide dispersion of its field forces, and the complicated relationships to the State experiment stations present problems of research organization and coordination second to none . . .

These are random facts and a quotation garnered from Administration for Research, which is the third volume of Science and Public Policy, a Report to the President by John R. Steelman, chairman of the President's Scientific Research Board. Volume 2 deals with the Federal Research Program and 4 with Manpower for Research. All make good reading for us, particularly the parts about USDA. The reports are available from the Library.

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Foot-and-mouth disease

Changes in the present foot-and-mouth disease program in Mexico were announced in press release 2709, November 26.

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PMA NOW

PRODUCTION and Marketing Administration now comprises nine commodity and seven functional branches, and four staff offices which deal with matters requiring broad, coordinated action. PMA works very closely with Commodity Credit Corporation.

The nine commodity branches are as fellows: Cotton, Dairy, Fats and Oils, Fruit and Vegetable, Grain, Livestock, Poultry, Sugar, and Tobacco. They direct all USDA programs affecting these commodities, except the basic programs of long-established agricultural research bureaus. Thus commodity program responsibility and authority are centered in single offices.

The seven functional branches are: Agricultural Conservation Programs, Price Support and Foreign Supply, Shipping and Storage, Food Distribution Programs, Marketing Facilities, Marketing Research, and Fiscal. In general, their names strongly suggest their functions and responsibilities. Should any readers want a paragraph or so covering a single branch in more detail, write the editor of *USDA* and he will send this; the material is somewhat too long to print in our restricted space.

The staff offices are: Office of Audit, Information Service Branch, Compliance and Investigation Branch, and Budget and Management Branch. The names of the first, second, and last make their functions pretty obvious. The third develops information and means to facilitate prevention and detection of fraud, violations, and irregularities in connection with purchases, sale, storage, export, loan, price support, and related programs. It conducts investigations and installs and services certain accounting systems.

Commodity Credit Corporation engages in lending, buying, selling, and other activities with respect to agricultural commodities, for purposes of stabilizing, supporting, and protecting farm income and prices, maintaining adequate supplies of agricultural commodities, and facilitating the orderly distribution thereof.

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It wasn't so at all

In a personal letter, Dr. H. K. Wilson, head of the Agronomy Department at Pennsylvania State College, now on a special assignment in Japan, wrote recently: "I have just returned from a 2-week trip that took me to both Hiroshima and Nagasaki. We had been asked to check on reports of beneficial effects to crops as a result of the bomb. As far as we could see there were no beneficial effects—it appeared much the same as would happen wherever there was a fire."

The BAE is 25 years old

THIS YEAR, the Bureau of Agricultural Economics rounded out a quarter of a century as the Department's chief statistical and economic fact-finding agency. The Bureau was formed as a merger of the Bureau of Markets and Crop Estimates and the Office of Farm Management and Farm Economics on July 1, 1922, when the sound of crashing farm prices was still loud in the ears of U. S. farmers. Much of its work, however, antedates its birth. Collection of agricultural statistics was first authorized by Congress in 1839, although continuous work in this field goes back only to the 1860's. The foundations for much of the Bureau's farm management, marketing, and other economic work was laid shortly after the turn of the century.

The Bureau has undergone many changes in the last 25 years. Many of the branches of the Production and Marketing Administration are derived from the eight marketing divisions transferred out of the BAE in 1938. The study of foreign agriculture and foreign markets is being carried on primarily by Foreign Agricultural Relations. The old Agricultural Cooperation Division is now the Cooperative Research and Service Division of the Farm Credit Administration. Several other lines of work also have come in and out of the Bureau, and almost every agency interested in agricultural statistics or economics at a national level has one or more "graduates" of BAE on its staff.

Since its reorganization, in 1945, according to the recommendations of the Eisenhower committee, BAE has only one division that was not in it in 1922—except for separation of the crop and livestock estimating work into 6 divisions. Its purpose is still largely that described by Secretary Henry C. Wallace—"to inquire into every economic condition and force which has an influence upon either production or prices . . ."

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Forest Co-ops

Forest Cooperatives in the United States, Report 6 from a Reappraisal of the Forest Situation, has been issued from Forest Service. There were 5 previous reports on other timber and forest subjects. One co-op at Cooperstown, N. Y., combines forest management, processing, and the marketing of forest products on a substantial scale, has a thousand members, and covers 31,000 acres which bear 50 million board-feet of timber. It can produce 2 million board-feet annually on a sustained-yield basis, using its own sawmill, dry kiln, planer, cut-up saws, etc. For details procure the publication itself or get No. 2427 by *writing* Press Service, USDA, Washington 25, D. C.

Agricultural Outlook

FROM HEARING the talk by this title, delivered before the Twenty-fifth Annual Agricultural Outlook Conference, on November 3, by Assistant Chief O. C. Stine, of the Bureau of Agricultural Economics, we gathered that conditions were generally good and relatively sound, all things considered. Prices for farm commodities probably have gone about as high as they will go, unless there is another spurt in the spring of 1948, and are almost certain to start declining next year. However, it is doubtful whether they will decline to prewar levels for some time. No violent recession like that of the twenties is anticipated.

We have what is essentially full employment and all indications point to a continuance of this condition for some years to come, though some variations in employment are to be expected. This obviously means relative continuing high prices for many agricultural products. Meanwhile the farm labor situation tends somewhat to stabilize, it is not anticipated that wages will rise much further, while labor is more plentiful. However, it is quite probable that farmers will face increasing costs for supplies and equipment, as these are likely to rise further. This would mean net incomes lower than last year's high level.

The export market has, of course, played a great part in sustaining active demand for agricultural commodities. This demand is slackening as these lines are written because of dollar-exchange conditions, but implementation of the Marshall Plan will end that decline. It looks, for instance, as if we shall export about a half million bushels of wheat this year, an all-time record. This export figure in the face of a shorter corn crop, requires conservation of supplies; but with only the average export requirements, we should probably right now be in the position of supporting wheat prices.

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Breaking New Ground

This is the title of a new book issued by Harcourt, Brace, of New York City; it is an autoblographical account by the late Gifford Pinchot, who was the first professional forester in the U. S., and who headed Forest Service during its formative years. Procure from booksellers or the Library.

Never BAE Chief

Prof. John D. Black was never Chief of the Bureau of Agricultural Economics as we said on the front page of the October 13 issue, though A. G. Black was. The phrase should have read "former BAE Chief Lloyd S. Tenny, and Prof. John D. Black of Harvard."

USDA'S HONOR AWARDS PROGRAM AND OTHER PERSONNEL INFORMATION

Meaning of the Awards

ALL employees of the Department, members of their families, and the public also will have pride in the Department's program for recognition of outstanding contributions to the service. Such recognition is deserved as a matter of justice and as a reward for service beyond the call of duty. The Honor Awards provide an additional incentive to spur us in our aspiration to serve well and to be commended for it.

Nomination by your agency for an Honor Award is in itself a distinction. Standards for awards are high and they will remain high. The high quality of past services once signalized by awards must never be minimized in the future by a lowering of standards.

Our Department family, and it is a family distinguished in the minds of the American people as a great organization for national service, knows and appreciates better than others can the difficulty and distinction of the contributions that have merited awards. Members who receive awards may always be confident of the deep appreciation and pride felt by the Department as a whole and by the individual members of the Department family in their contributions.

Our Awards Program is a new departure in a long tradition of outstanding employee achievements. It should help suggest to all of us a more alert watchfulness for persons who are rendering unusual services, and to further the growth and development of fruitful careers in the public service.—T. Roy Reid, *Director of Personnel.*

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The Awards

The Distinguished (gold) and Superior (silver) Service Awards are the same on the obverse (head) sides of both medals. The reverse differs in the lettering. The design is based on that of the Department seal and features the corn shock and our famous left-handed plow. The laurel wreath signifies victorious achievement. The medal was executed by the medallic sculptors who design our coins. The medal of the design received approval of the United States Fine Arts Commission and the United States Mint thus produced our medals. Length of service emblems were produced under supervision of the United States Mint.

The Awards Program

MORE than two decades ago a highly vocal and very distinguished scientist in the Bureau of Animal Industry, Maurice C. Hall—the man who found out how to rid animals and man of that scourge, the hookworm—wrote and spoke in praise of the virtues and accomplishments of Federal experts, scientists and nonscientists. They performed distinguished and often heroic service but, as he said, they received no citations and no medals, as did outstanding members of our armed services. They conscientiously served the public humbly and in relative obscurity.

On November 12, 1947, Dr. Hall would have been delighted, had he been alive, to see the Secretary of Agriculture present Distinguished Service Awards (medals and citations) to seven employees of the USDA, Superior Service Awards to forty-some more, and Length-of-Service Awards to employees who had been in the service more than 40 years—one had actually served 53. This was done at a special ceremony in Washington. It was done in line with a policy, a pattern, and a program developed in the Department of Agriculture itself, first of the great Government agencies to give faithful civilian Government servants medals and citations.

This will be an annual ceremony, hereafter held May 15 of each year. It sprang from the appointment of a Committee on Honor Awards, September 16, 1943, General Departmental Circular No. 11. Those who wish to trace the history of the program should also see Supplement 1 to this Circular of May 19, 1944, Secretary's Memoranda Nos. 1146 of February 7, 1946, and 1186 of February 11, 1947, with Supplement 1 to the latter of June 20, 1947, as well as the Secretary's Memorandum to Heads of Department Agencies announcing the members of the Award Boards, July 18, 1947. *USDA* covered the program in its issues for March 31–April 14, and September 1, 1947.

In the Foreword to the special program booklet issued for the occasion, Secretary Anderson spoke highly of the pool of scientific knowledge USDA employees have developed over the years, of their ability to give the facts promptly and accurately on so wide a variety of subject matter, and on their willingness to render service over and above that officially required of them. He concluded his Foreword thus:

> Today, following a pattern developed in this Department, we are attempting in some small measure to honor those who have signally contributed to the Department's objectives of improving American farm life and serving the Nation as a whole. We are acutely aware that others, quite as deserving of awards as these ladies and gentlemen, have not yet come to light. We hope that today's ceremony will help us to find and reward them and will also act as a stimulus and inspiration to even greater achievement and more faithful service on the part of every employee of the U. S. Department of Agriculture.

The individual winners of the Distinguished Service Award were:

HUGH H. BENNETT, SCS, Washington, D. C.: For his achievement in the field of soil and water conservation which has benefited American agriculture and contributed to the welfare of people throughout the world.

DR. JAMES F. COUCH, BAIC, Wyndmoor, Pa.: For research on the utilization of constituents of agricultural commodities which led to the discovery that rutin is an active agent in reducing fragility and other capillary disorders in man.

LEWIS B. HOLT, FS, Clearwater N. F., Idaho: For heroism beyond the call of duty which resulted in saving the life of a fellow employee.

WILLIAM A. JUMP, B&F, Washington, D. C.: For outstanding service and leadership in the advancement of public administration.

MILBURN L. WILSON, Extension Service, Washington, D. C.: For his leadership in pioneering ideas and in developing programs that have greatly improved farming methods, encouraged democratic group action, and enriched the qualities of rural life.

The following unit citations were awarded locally:

NORTHERN REGIONAL RESEARCH LABORATORY, Peoria Penicillin Group, BAIC, Peoria, Ill.: For agricultural research which made an invaluable contribution to medical science by making the mass production of penicillin possible.

ORLANDO FLORIDA LABORATORY, EPQ, Orlando, Fla.: For development and application of means of protecting military personnel against attack by insects and diseases spread by insects.

The individual winners of the Superior Service Award were:

CARMELO ALEMAR, OES, Mayaguez, P. R.; RICHMOND Y. BAILEY, SCS, Spar-

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tanburg, S. C.; DR. CHARLOTTE H. BOATNER, BAIC, New Orleans, La.; CONNIE J. BONSLAGEL, Ext., Little Rock, Ark.; NETTIE P. BRADSHAW, BAE, Washington, D. C.; JOHN R. BRUCKART, FS, Eugene, Oreg.; PORTER C. BURRIS, FS, Forest, Miss.; THOMAS M. CAMPBELL, Ext., Tuskegee, Ala.; MARTIN R. COOPER, BAE, Washington, D. C.; THEODORE P. FLYNN, FS, Portland, Oreg.; MILTON H. FOHRMAN, BDI, Washington, D. C.; HARRY T. GISBORNE, FS, Missoula, Mont.; ATLEE L. HAFENRICHTER, SCS, Portland, Oreg.; DR. R. E. HODGSON, BDI, Washington, D. C.; KENNETH D. JACOB, PISAE Beltsville, Md.; DR. GEORGE S. JAMIESON, PMA, Washington, D. C.; ARTHUR J. JOHNSON, SCS, San Fernando, Calif.; SHERMAN E. JOHNSON, BAE, Washington, D. C.; DAVID BREESE JONES, HNHE, Beltsville, Md.; F. P. KEEN, EPQ, Berkeley, Calif.; F. LEE KIRBY, FS, Denver, Colo.; FRANCIS J. MARSCHNER, BAE, Washington, D. C.; ANNE E. MCFADDEN, Pers., Washington, D. C.; WILLIAM J. MORSE, PISAE, Beltsville, Md.; THEODORE W. NORCROSS, FS, Washington, D. C.; WILLIAM C. ORR, JR., FHA, Washington, D. C.; RUSSELL R REYNOLDS, FS, Crossett, Ark.; CARL E. RIST, BAIC, Peoria, Ill.; SIEVERT A. ROHWER, EPQ, Washington, D. C.; H. C. SEYMOUR, Ext., Corvallis, Oreg.; ETHEL E. SMITH, Lib., Washington, D. C.; HOMER G. SMITH, FCA, Washington, D. C.; BERTHA L. ZOELLER, Inf., Washington, D. C.

The following unit citations were awarded locally:

Alaska Spruce Log Program, FS, Tongass National Forest; Bibliography of Agriculture Section, Lib., Washington, D. C.; Bull Run District, Mount Hood Forest, FS, Zigzag, Oreg.; Clerical Staff, FS, Washington, D. C.; Forest Products Laboratory, FS, Madison, Wis.; Lafayette Ranger District Hoosier Purchase Unit, FS, Tell City, Ind.; Moorestown, N. J. Laboratory, EPQ, Moorestown, N. J.; Division of Sugar Plant Investigations, Sugar Beet Curly Top Project, PISAE, Beltsville, Md.; Division of Sugar Plant Investigations, Sugarcane Production, Breeding, Disease, and Quality Investigations, PISAE, Beltsville, Md.; Tulia, Texas Work Unit, SCS, Tulia, Tex.

BERNARD CUNNINGHAM of Bureau of Animal Industry was unfortunately unable to come to Washington from Kansas City, Mo., to receive his Length-of-Service Award for 53 years of service. The employee present with the longest service in the Department was JOSEPH H. STEVENSON, Office of Information, with 47 years. The following received awards for 40 or more years of service in USDA *as of May 15, 1947:*

ACKER, SARAH L., Washington, D. C.; ALEMAR, CARMELO, Mayaguez, P. R.; BALLARD, WILLIAM S., Fresno, Calif.; BARBER, ELLIS E., Washington, D. C.; BATES, CARLOS G., St. Paul, Minn.; BEATTIE, JAMES H., Beltsville, Md.; BEHLER, CLAYTON R., Kansas City, Mo.; BENDER, JOHN E., Nashville, Tenn.; BENNETT, HUGH H., Washington, D. C.; BISHOPP, FRED C., Washington, D. C.; BOERNER, EMIL G. (deceased), Beltsville, Md.; BOYER, EDWARD A., Chicago, Ill.; BOYLE, HERMAN E., Milwaukee, Wis.; BROWN, DAVID E., Upper Marlboro, Md.; BRYAN, HARRY (retired), Beltsville, Md.; BURCHILL, GEORGE D., Boston, Mass.; CADY, BERT J., Augusta, Maine; CALLANDER, W. F., Washington, D. C.; CALPH, EDWARD J., South St. Paul, Minn.; CAMPBELL, THOMAS M., Tuskegee, Ala.; CARTMILL, LEWIS J., Fort Worth, Tex.; COHRAN, JOHN R., Washington, D. C.; CONNOR, BERNARD, Washington, D. C.; COOK, STANLEY C., Cincinnati, Ohio; COPELAN, SAMUEL L., Chicago, Ill.; COVINGTON, PERCY C., Los Angeles, Calif.; CUNNINGHAM, BERNARD J., Los Angeles, Calif.; DANIEL, LENA A., Washington, D. C.; DAVIS, EVERETT W., Providence, R. I.; DAWSON, CHARLES W., Beltsville, Md.; DOMNOSKY, HERMAN G., Cumberland, Md.; DOYLE, CONRAD B., Beltsville, Md.; ELWELL, FRED N., Fort Worth, Tex.; EVANS, MORGAN W., Wooster, Ohio; FEATHERSTONE, GEORGE D., Cleveland, Ohio; FERRALL, JOHN A. (retired), Beltsville, Md.; FITZPATRICK, ARTHUR C., Boston, Mass.; FLAHERTY, GEORGE F., Fort Worth, Tex.; FOSTER, FRANK L., Buffalo, N. Y.; FRANKLIN, ROBERT M. (retired), Springfield, Mass.; FUSSELMAN, MILTON, Harrisburg, Pa.; GAGE, CHARLES E., Washington, D. C.; GAUNT, SAMUEL M. (retired), South St. Joseph, Mo.; GERSDORFF, CHARLES E. F., Beltsville, Md.; GLYNN, FRANK J., Newark, N. J.; GOLL, FRANK L., Beltsville, Md.; GOOCH, BENJAMIN F., South St. Joseph, Mo.; GOWE, CLARENCE B., Omaha, Neb.; GUILLAUME, MICHAEL, Chicago, Ill.; HALEY, JOSEPH, Washington, D. C.; HEARN, WILLIAMSON E. (retired), Beltsville, Md.; HEIM, ARTHUR L., Madison, Wis.; HEISLEY, LYDIA MARIE, Washington, D. C.; HODGE, FREDERIC E. (retired), Washington, D. C.; HOLM, ROBERT E., Beltsville, Md.; HOLMES, ALLEN, Beltsville, Md.; HULT, OSCAR G., South St. Joseph, Mo.; JENISON, JOSEPH S., National Stock Yards, Ill.; JEROME, CHARLES A., Kansas City, Mo.; JUMP, WILLIAM A., Washington, D. C.; KELLY, JAMES W., Beltsville, Md.; KILLORAN, JOHN J., San Francisco, Calif.; KNORR, GEORGE W., Indianapolis, Ind.; LASH, ELMER, Olympia, Wash.; LATIMER, WILLIAM J., Washington, D. C.; LAWRENCE, HARVEY J., Sioux City, Iowa; LEES, FRED, Washington, D. C.; LEDOUX, OSCAR M., National Stock Yards, Ill.; LEHMANN, WILLIAM G., Washington, D. C.; LEONARD, HARRY B., Albany, N. Y.; LEWIS, CHARLES C., South St. Joseph, Mo.; LOCKNANE, JAMES M., Washington, D. C.; MAXWELL, GEORGE E. (retired), Kansas City, Mo.; MACKELLAR, WILLIAM M., Washington, D. C.; MCCORMACK, Birtwhistle, Kansas City, Kans.; MCGRAW, ETTA B., Washington, D. C.; MCKEE, ROLAND, Beltsville, Md.; MCKERICHER, JOSEPH W., Beltsville, Md.; MCLAUGHLIN, PHILIP S., Los Angeles, Calif.; MCNAUGHT, ARCHIBALD, Washington, D. C.; MEYERS, GEORGE W., Harrisburg, Pa.; MORGAN, GRACE S., Washington, D. C.; MULL, ROBERT B., Washington, D. C.; MYERS, IRA M., Omaha, Nebr.; NEWMAN, ROBERT R., Allentown, Pa.; NEWTON, HOWARD M., Charleston, W. Va.; PAGLE, CHARLES W., Jr., Buffalo, N. Y.; PALMER, WILLIS A., Chicago, Ill.; PARKER, JULIAN J., Fort Worth, Tex.; PHETTEPLACE, FREDERICK R., Philadelphia, Pa.; PICKETT, THEODORE, Kansas City, Kans.; PORTER, HARRY W., Washington, D. C.; QUIGLEY, WALTER F., Manchester, N. H.; QUIRK, AGNES J., Beltsville, Md.; RAYMOND, MARY J., Washington, D. C.; REIDY, JOHN B., Harrisburg, Pa.; RICKER, PERCY L., Beltsville, Md.; RITCHIE, ELIZABETH, Beltsville, Md.; ROBINSON, WILLIAM O., Beltsville, Md.; SASSCER, ERNEST R., Washington, D. C.; SAVAGE, EDWARD M., Orlando, Fla.; SCHNEIDER, FREDERICK L. (retired), Albuquerque, N. Mex.; SEHORN, VICTOR H., Washington, D. C.; SHERMAN CAROLINE B., Washington, D. C.; SHERWOOD, SIDNEY F., Beltsville, Md.; SKIDMORE, DON I., Beltsville, Md.; SMITH, WALTER A., Topeka, Kans.; SNYDER, RUDOLPH, Washington, D. C.; SPAULDING, PERLEY, New Haven, Conn.; STANKEY, ARTHUR H., St. Louis, Mo.; STEVENSON, JOSEPH H., Washington, D. C.; STILES, GEORGE W. (retired), Denver, Colo.; STONEBURNER, JOHN D., Dubuque, Iowa; TELLEJOHN, EDWIN H., Kansas City, Kans.; TIERNEY, DANIEL D., South St. Paul, Minn.; THOMAS, JAMES H., Beltsville, Md.; TRUXELL, JOSEPH M. (retired), Washington, D. C.; UPTON, KATHERINE G., Washington, D. C.; VERMILLION, ROMMIE C., Indianapolis, Ind.; WALTON, GEORGE P., Washington, D. C.; WEAVER, FLAVUS, Chicago, Ill.; WHITE, GRANVILLE, Beltsville, Md.; ZIMMERMAN, JAMES A., Spokane, Wash.

Employees of 10, 20, and 30 years' service, as well as many of the 40-year service employees, received their awards at their official headquarters.

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Cash Awards for Suggestions

ON November 7, 1947, Secretary Anderson issued regulations under which cash awards would be paid for suggestions. Secretary's Memorandum 1048, Revision 2, is being printed for distribution. Copies should be ready early in December. If you can't wait for the Memorandum and want to ponder on the basic provisions of the program, read section 14 of Public Law 600—Seventy-ninth Congress, and Executive Order 9817. Eligible suggestions adopted for use since August 2, 1946, may receive consideration for award.

The Secretary has established a Suggestion Awards Board to develop standards and procedures and to evaluate adopted suggestions. Suggestions entitled to an award of $25 or less may be paid for by agencies under delegated authority. Agency Suggestion Awards Committees will recommend on awards to the Board. No award may be for less than $10 or for more than $1,000.

Suggestions that are expected to be made in the ordinary line of duty are not eligible. But there is plenty of room for good ideas outside of problems and projects directly assigned to us. A suggestion that is the basis for a within-grade promotion for superior accomplishment may not be considered for a cash award also. But an outstanding suggestion for which a cash award is paid may become the basis for one of our new Distinguished or Superior Service Awards.

Read Memo 1048 and reach for your thinking cap. This is as good a way to turn your ideas into cash as we know of. Quit day-dreaming and cash in.

Meritorious promotions

THE following employees have been awarded pay increases for superior accomplishment:

Bureau of Animal Industry: ROSCOE DALTON, Meat Inspector, in recognition of his resourcefulness in preventing breakage of skewer thermometers by the attachment of a clip-type safety device. PATRICK J. KINLEY, Meat Inspector, for developing a perforated disk to be used as a screen in the filler attachment on sausage-stuffing machines to keep out string, casings and other foreign material.

Commodity Exchange Authority: MARY A. VINALL, Clerk, for carrying out a dual assignment, when administrative work was increased and personnel reduced, in which she displayed unusual resourcefulness, ingenuity and ability.

Forest Service: RALPH T. OHMAN, Administrative Assistant, for exemplary initiative, loyalty and resourcefulness which contributed to the success of the Alaska Spruce Log Program. OLE B. LIEN, Lookout, for outstanding service to the public in rescue missions in the Mount Hood area which required more than average courage and skill. LLOYD G. GILLMOR, General District Assistant, for exhibiting unusual ability in public relations in the handling of recreational activities and for participating in a number of rescue missions involving more than average courage and skill. JAMES P. LANGDON, District Forest Ranger, for heroic and skillful action in a number of instances and for general outstanding skill in public administration. PORTER C. BURRIS, Foreman Mechanic, for unusual skill and ingenuity in constructing from salvaged materials and improvised parts a working model of the Ranger Pal Fire Plow, and for constructing successive models incorporating suggestions made by field men. BRANTLEY H. FRASER, General District Assistant, for carrying out a prescribed burning program with exemplary industry and for making observations of various techniques which have contributed materially to new established procedures. JOSEPH O. BRIDGES, Forest Ecologist, for doing an outstanding job of establishing experimental planting areas in New Mexico. HORACE E. HEDGES, Forester, for able direction and leadership in working with other public agencies cosponsoring the making of two very successful fire-control-training motion pictures.

Production and Marketing Administration: AUGUST F. SCHIMMACK, Fiscal Accountant, in recognition of his initiative in developing a method for computing wages on overtime which facilitated the preparation of certain pay rolls. WALTER C. WHEELER, Grain Inspection Supervisor, for devising and perfecting an automatic flour- and cereal-sampling machine which has resulted in marked economics in man-hours, money, and personnel.

Bureau of Plant Industry, Soils and Agricultural Engineering: WILBUR M. HURST, Agricultural Engineer, for outstanding contribution to the fiber-flax, and poultry-processing industries through study and application of engineering principles in these fields which materially lowered costs of operation and increased income for these industries. WILLIAM V. HUKILL, Agricultural Engineer, in recognition of his outstanding contribution to the public in the development of better equipment methods for transporting and storing perishable fruits, vegetables, and grain.

Soil Conservation Service: CHARLES H. GREY, Clerk, for developing a procedure for scheduling work on bookkeeping machines which resulted in greater accuracy and speed. WELDON G. PERRIN, Soil Scientist, for developing an improved orchard-type soil auger which utilizes lightweight metals and incorporates good engineering principles. ELBRIDGE BACON, Soil Conservationist, for initiating and completing a program of seeding sweetclover by airplane which resulted in considerable saving in costs and time and greatly advanced the conservation program in his district. R. LOCKWOOD FORSYTH, Soil Conservationist, for demonstrating exceptional ability and initiative in solving land-use problems in a particularly difficult district located at the edge of the Mojave Desert.

Bernard Cunningham

ON THE 14th day of December 1893, Bernard Cunningham, then being 16 years of age, took the oath of office as a Tagger in the Bureau of Animal Industry, at an annual salary of $750. His appointment, dated December 6, 1893, was signed by Secretary J. Sterling Morton, an economy-minded Nebraskan of great intellectual independence and force of character, who served as Secretary of Agriculture from March 7, 1893, until March 5, 1897. On August 8, 1902, Dr. D. E. Salmon, the Department's first veterinarian and first Chief of the Bureau of Animal Industry, who assembled therein a famous galaxy of scientists, requested that Mr. Cunningham be promoted from Tagger at $750 to Stock Examiner at $900 a year, and this promotion promptly took effect. Others followed in due time.

Bernard Cunningham was born in Missouri, in 1877. He served the BAI mostly in Kansas City, Mo., and Kans., until November 25, when he retired at 70. He became a Lay Inspector November 1, 1914, a Senior Lay Inspector a decade later, and a Livestock Inspector CAF–6 on October 1, 1944. His first efficiency report, for May 1, 1912, rated him 97; his current efficiency rating is Excellent. He is the oldest employee of USDA in point of service and every effort was made to have him come to Washington to receive his Length-of-Service Award in person from Secretary Anderson on November 12. This, however, proved impossible because of illness in his family.

This son of Irish immigrants—Bryan Cunningham and Mary Scanlon, born in Ireland, were his parents—has been in the Department for an exceptional length of time. But he is only one of tens of thousands of USDA employees who are giving the public the same kind of intelligent, efficient service. In a form he filled out January 2, 1942, he wrote: "On account of age a change in assignment would probably be inconvenient, but will serve in any capacity the Bureau deems necessary as a defense measure." There undoubtedly speaks the man and the public servant in revealing terms. To him went a gold pin awarded for 50 or more years of faithful service to American farm life in USDA.

Our personnel

FROM the very beginning the personnel of the Department of Agriculture has had to be exceptionally well-qualified. Isaac Newton, the first Commissioner of Agriculture, appointed as the Department's chemist, gardener, entomologist, statistician, and so on, professional men who ranked with the best as to qualifications, education, competence, and experience. This becomes quite clear in the *USDA* editor's fast nonselling book, Two Blades of Grass, an account of the Department's scientific achievements. You will find some of the story in *USDA* Document No. 5, Our Department Scientists.

The second Commissioner of Agriculture, Gen. Horace Capron, remarked in his annual report to President Grant, for 1870, that the Department's

> work demands a higher order of talent than the routine service of most public business; it requires a knowledge of national economy, social science, natural history, applied chemistry, animal and vegetable physiology, and practical agriculture; and presents so broad a range of facts in each field of investigation as to demand the most active effort and the most persistent industry.

He continued:

> For such labor the most meager compensation is offered, and it is found difficult to obtain an increase of suitable service, and impossible to remunerate properly that already employed, which is found to be most efficient and reliable, while that which is practically useless for the purpose is offered in unlimited measure. A just and wise revision of clerical salaries would greatly increase the efficiency of the Department.

Later Commissioners and Secretaries of Agriculture—the Department's head assumed a seat in the Cabinet only in 1889—echoed these sentiments. Many of them assumed their positions under the misapprehension that the Department's employees would be lazy and inefficient. Time after time they found the exact reverse was true and commented upon this in their annual reports and their public addresses. Over and over again heads of the Department have sought better compensation for their employees and commented favorably upon their competence, their devoted service, and their conscientious industry. The present Secretary of Agriculture is no exception to this rule.

Because of the specialized scientific and technical responsibilities it assumed, the Department early saw the necessity for adding to its staff expertly qualified individuals of the highest professional standing. Rather naturally it was the leader among Federal Government agencies in developing a modern personnel policy and in establishing an Office of Personnel with a Director at its head.

Retiring deposition

"THE REWARD of a thing well done," says Emerson, "is to have done it." That's the way I feel about my retirement. I reached retirement age solely by my own efforts; no one added a single year to the required total. The accomplishment was not without its shadows, but I spent 41 of the happiest years of my life in Bureau of Plant Industry, Soils, and Agricultural Engineering. Curiously, it was the navel orange that led me there. I was visiting the Department greenhouses. The original navel orange tree was pointed out to me, and I was told that its introduction into California had meant more money to that State than its fabulous gold mines.

Now, the history of the human race has been summarized in seven words: *They were born; they suffered; they died.* Tombstones often give even stronger testimony to the futility of human effort. Many of them bear only the dates of birth and death; between is a blank. However, most of us want to feel that our work is more important than that. The ideal job, we believe, is one that enables us to make a real contribution to the general welfare, while earning a living for ourselves. The navel orange story convinced me that the Department of Agriculture offered such jobs. I've had no reason to change that opinion since reporting for duty August 1, 1906, even though I was merely a "nut" in the machine. After all, nuts sometimes keep the machine from falling apart.

Now I have retired and am living in Southern California where I can watch the oranges turn into gold. I don't dare write about the country, for my friends might be led to believe that I did not actually retire, but died and am in Heaven! To prepare for retirement, get yourself a hobby *now*—reading, writing, fishing, stamp collecting, photography, inventing. Such a hobby may prove even more profitable than your regular job has been. And when you do retire, review your life and check up on the things you have missed. If you've never seen a baseball game, see one. If you've never read of the old civilizations of the new world, do so! Above all cultivate a lively curiosity and yield to its whims. Then, like me, you will never be bored no matter how long retired.—John A. Ferrall, PISAE (*retired*).

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Directory

Material for the revision of USDA's Directory of Organization and Field Activities has been sent to the Government Printing Office.

Tom Campbell

NOVEMBER 12, the date that Secretary Anderson presented awards to USDA employees for exceptional or meritorious service, marked the completion of 41 years of service in the Department for T. M. Campbell, oldest employee of Extension Service and recipient of a Superior Service Award for meritorious service to agriculture and rural life. It was on November 12, 1906, that Campbell went to work for the Department as an agricultural collaborator at a salary of $1 a year. This, of course, was in addition to an annual salary of $840 which he received through Tuskegee from the General Education Board.

A few days after Campbell was employed to carry out cooperative demonstration work with colored farmers, the tall, stoop-shouldered youth of 23 climbed aboard the "Jesup Wagon"—a school on wheels—tightened the reins of his mules, waved goodbye to Booker T. Washington and George Washington Carver, and drove off to carry agricultural education right up to the doors of Alabama farm people. Thus began Extension work with Negro farm families. Today, there are over 800 colored farm and home demonstration agents carrying agricultural and homemaking information to some 500,000 Negro farm families in the South.

Campbell is now a regional field agent who helps to supervise and coordinate the work of Negro agents in seven States from Florida to Oklahoma. Two years ago he was loaned to the General Education Board to help make a study of extension techniques which may be applied in the improvement of rural life in West Africa. Alabama still has a mobile school which makes the rounds to supplement the work of farm and home demonstration agents. Sherman Briscoe, *Inf.*

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Dr. Stiebeling Honored

Dr. Hazel K. Stiebeling, Chief of the Bureau of Human Nutrition and Home Economics, received an honorary degree of Doctor of Science from Iowa State College in late October. At the same time the college celebrated the seventy-fifth anniversary of its first teaching in home economics. Known internationally as an authority, Dr. Stiebeling was cited for the fact that "to a greater extent than any other home economist in the United States, she has served the families of America and the world through her outstanding work in the many national and international conferences on food and agricultural problems held since 1936 in the United States and abroad." She was further cited for her service with the National Research Council and for coordinating the work of her bureau well with that of the land-grant colleges. A graduate of Columbia, Dr. Stiebeling taught there and at Kansas State Teachers College before entering USDA in 1930. She became Assistant Chief of HNHE in 1942, and Chief in 1944.

Rutin record

AT LEAST 15 companies are now producing the new drug, rutin, on a commercial scale, Dr. James F. Couch of the Eastern Regional Research Laboratory reported recently. One company has erected a new factory to be used exclusively for rutin manufacture; another has built a huge dehydrator to prepare buckwheat-leaf meal for its own rutin plant. It is estimated that the annual demand will ultimately exceed 1 million pounds of rutin, and that this will call for the crop from more than 50,000 acres of buckwheat grown for the purpose. This would require an increase of more than 10 percent in the buckwheat acreage of recent years.

Dr. Couch, leader of a group of research workers in the Bureau of Agricultural and Industrial Chemistry, isolated rutin in studies of fundamental tobacco chemistry. He received a Distinguished Service Award on November 12. A small supply of the drug prepared from tobacco showed that it might have medicinal value. Clinical tests by Dr. J. Q. Griffiths, Jr., of the University of Pennsylvania Medical School, showed that it was valuable in the treatment of increased capillary fragility, a serious cause of blindness.

The research workers then sought less expensive sources of rutin, and have derived it from many plants. Buckwheat proved to be a much better and cheaper source of supply, and research was continued through the pilot-plant stage, including manufacture of rutin from both green and dried buckwheat. The crop is harvested before the grain is ripe. Commercial development followed this pioneer work at the laboratory. Dr. Couch reports several physicians now believe that the medical uses of rutin are not limited to the treatment of capillary fragility, but the drug should be useful in many types of hemorrhagic diseases.

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Intern Program

The Civil Service Commission furnishes the leadership for two Administrative Intern Programs each year. This program gives Government agencies the opportunity to select outstanding young persons who, they think, will develop into administrators or executives. Not more than 30 persons from all Government are training each half year. Agriculture usually selects from two to five outstanding persons to receive 6 months' administrative training.

BAI directory

The Directory of the Bureau of Animal Industry, in the field and in Washington, has appeared, revised as of July 1, 1947.

U. S. GOVERNMENT PRINTING OFFICE: 1947

Some 25 years ago

AT THIS time Henry C. Wallace was Secretary of Agriculture by appointment of President Harding. He observed that farmers produced on faith, took great risks, and that 1920 crops were grown at the highest cost ever. Yet the farmer had to take what he could get for his produce while buying in a high-priced market. He was producing a surplus he could not sell, while hungry people starved abroad. Transportation rates, land prices, and rents were all excessive.

The year 1920 was unprofitable for farmers and their difficulties assumed national concern. A national agricultural conference was held in Washington. There was an unprecedented drop in farm prices, agricultural commodities went at bankruptcy rates, farmers had to borrow heavily, and the farm credit system was ill-adapted to their needs. There were few hopeful aspects to the problem. Farmers must be frugal, quit taking up more land, and practice intensive agriculture, for only larger production at lower per-acre cost could enable them to meet foreign competition.

The War Finance Corporation had saved many farmers from the receiver; the farm land and joint-stock banks had advanced large sums on mortgages. Within the Department, many economies were effected though salaries were raised largely because Secretary Wallace held research to be a national investment, the scientists a national asset, and even bureau chiefs to be paid far less than they would get for similar responsibilities outside Government. He said research was still the Department's basic service.

The graduate school had been established. The Department needed new buildings badly. The Bureaus of Crop Estimates and of Markets had been consolidated, and soon the Offices of Farm Management and of Farm Economics entered the merger which became the Bureau of Agricultural Economics. The study of home economics expanded under C. F. Langworthy. Government supervision over grain exchanges and improved farm credit legislation were recommended. Packers and Stockyards Administration, Office of Exhibits, and the Fixed Nitrogen Research Laboratory began making separate reports. In 1923 a radio news service is mentioned as having been started.

Research achievement

Research Achievement Sheet 84 (E) tells about the development by USDA scientists of equipment for spraying insecticides from aircraft and was largely written by E. F. (DDT) Knipling. Procure from Agricultural Research Administration.

Don't shoot that insulator!

THE RURAL Electrification Administration has joined with its more than a thousand borrowers in a program aimed at eliminating the practice of shooting at insulators on rural power-line poles. During the past year, REA received hundreds of reports, from every section of the United States, of widespread damage and loss caused by the interruption of electric service from broken insulators. In the majority of the cases, the broken insulator was found to have been shattered by rifle shots, fired by thoughtless marksmen whose disregard for the public weal was a dominant characteristic.

A Denton, Tex., co-op manager reported damages to his co-op's lines totaled $3,000 during a recent hunting season. A St. Clairsville, Ohio, manager figured up one disruption of service cost $83 to repair, and a McLouth, Kans., manager estimated repair costs at $96.51 for one recent outage. Both outages were caused by hunters shooting at insulators.

A tragedy in Minnesota could have been avoided last year if a hunter hadn't damaged three insulators on a rural electric distribution line. When the lights went out in the absence of her parents, a 7-year-old girl, the oldest of five children, tried to light a lantern, with a piece of flaming paper. When the paper burned her fingers, she dropped it. Only two of the five children escaped from the house. The other three burned to death.

REA has prepared material aimed at curbing insulator marksmen and has sent it out to its borrowers. Many co-ops have posted rewards for arrest and conviction of anyone shooting at insulators. Some are enlisting the cooperation of schools.

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We Didn't Mean YOU!

Our compliments to the many *USDA* readers who "took the bait" and were incensed enough over the recent article Just Ignorance (*USDA* September 29) to send for the materials mentioned in it. A. James Martin informs us that supplies have been exhausted and future requests cannot be filled. He also asked that *USDA* give credit for the good results employees attained in answering the questionnaire and called our attention to the fact that 40 percent of those tested correctly answered 94 percent of the questions and 58 percent correctly answered 78 percent of the questions. The survey revealed that, at least every other person in the Department is very familiar with the personnel information he is expected to know, so if you want the answer to a personnel matter ask the fellow next to you or your personnel officer. Our hat's off to the many who scored so well. Keep up the good work!

Cornstalk sugar

SCIENCE NEWS Letter for November 8 reported that Dr. Ralph Singleton of the Connecticut Agricultural Experiment Station had bred a new sugar-producing cornstalk containing 8.65 percent of sucrose as compared with 10–15 percent for sugarcane. He believed it might be possible for farmers to harvest the ears of corn and make sugar from the stalks. If the ears are removed, however, the stalks contain more sugar still. The News Letter remarked that cornstalks "have never been considered a potential competitor of sugarcane."

However, they were. Henry L. Ellsworth, Commissioner of Patents from 1836 to 1844, told in one of his early annual reports how a thousand pounds of good table sugar had been made from cornstalks in Delaware by not permitting the ears to ripen. In 1838, when Britain abolished slavery, it appeared as if her colonial sugarcane production might decline, and we naturally looked around for other sources of sugar. The French botanist, Pallas, first observed that the sugar increased in cornstalks when the ears were removed before ripening.

About 1850 "Chinese sugarcane," or sorgho, was introduced in this country and for a while stole the limelight from cornstalks. Our Department chemists—Antisell, McMurtrie, Collier, and Wiley—all worked on it in their successive terms. But, in 1881, Peter Collier made cornstalk sugar in a USDA project, and such sugar was also exhibited at the St. Louis Exposition in 1903. In 1912 the Department began serious work on the cornstalk-sugar project, and crystalline sugar was obtained, but the process proved commercially infeasible, though the stalks were said to contain 12 percent of total sugar.

Our final report on this was by C. F. Clerk, an agronomist who worked under William A. Orton, but F. L. Stewart obtained a patent on the process in 1906. The recent Connecticut work simply adds the new touch of breeding corn for high stalk sugar content. That may truly lead somewhere.

Brief but important

Migrant Labor

This is the title of a pamphlet containing a series of articles by Agnes E. Meyer, which appeared in the Washington Post during October. Extension Service has reserved about 30 copies in case some readers of *USDA* care to write in for them. Address Division of Extension Information, Extension Service, USDA, Washington 25, D. C.

Seabreeze

Believe it or not, that is the name of a new disease-resistant wheat developed by USDA plant scientists, in cooperation with those of Texas Agricultural Experiment Station. It is rust-resistant and especially adapted for a belt from the lower Rio Grande to Louisiana; it does well in the damp winds of the Gulf which are so favorable to rust on most of the old varieties. E. S. McFadden of Bureau of Plant Industry, Soils, and Agricultural Engineering and W. H. Friend of the Texas Station have brought together in Seabreeze a variety of valuable characteristics including resistance to stem rust, leaf rust, loose smut, and mildew. High in protein, the wheat has been developed as a feed crop rather than for flour milling.

In November magazines

Clarice L. Scott, Bureau of Human Nutrition and Home Economics, is the designer of three smart-looking leather belts, a pair of gloves, and a leather handbag featured in Woman's Day. Alfred Stefferud, Yearbook editor, is the author of Big Business in a Nutshell, The New York Times Magazine for November 9. Entomology and Plant Quarantine's methods of controlling clothes moths are described in Keep It Clean, Collier's, November 1. Half a dozen items involving USDA research appear in McCall's National Newsletter, including a new way to make home-rendered lard stay fresh, developed by the Eastern Regional Research Laboratory, and a caution from Forest Service on how to make your Christmas tree fire-resistant—keep it in a container of water.

R&M projects

The following projects have been approved by Administrator Meyer of the Research and Marketing Act; get details from press releases, requesting them by number and *by mail* from Press Service, USDA: Two projects looking to new and wider uses for poultry products; Bureau of Animal Industry and Eastern and Western Regional Research Laboratories; 2495. Search for new and improved antibiotics from agricultural sources; Bureaus of Agricultural and Industrial Chemistry and Plant Industry, Soils, and Agricultural Engineering, National Institute of Health, Duke University School of Medicine; 2521. Seeking wider markets for deciduous fruits; BAIC, Virginia (and other) Agricultural Experiment Stations; 2525. Studies of demand, prices, and supplies of feed grains, byproduct feeds, and hay; Bureau of Agricultural Economics and Production and Marketing Administration; 2526. Predetermining potato quality for various table uses; PISAE and Bureau of Human Nutrition and Home Economics; 2558. Two projects on tobacco standards and marketing; PMA, PISAE, State experiment stations, private laboratories, and N. C. State College of Agriculture; 2559.

Soybean products

The use of soybean products and their potential industrial value was reviewed recently by Dr. Allan K. Smith of the Northern Regional Research Laboratory, soybean protein and its uses assuming top importance in the discussion. For details ask Press Service, *by mail*, for No. 2535.

Sweetpotatoes

A digest of the talk made by Secretary Anderson at the Louisiana Sweetpotato Show and International Exposition, Baton Rouge, on November 7, will give you a good deal of information on the subject. He discussed sweetpotatoes as human food, the use of the vines as cattle feed, as well as a new variety of sweetpotato which is especially promising for feed use, and the production of starch from sweetpotatoes. Ask Press Service, *by mail*, for No. 2562.

Christian rural relief

Collection of food and of raw materials for clothing from rural areas in the U. S., and their use for relief abroad is the function of the new Christian Rural Overseas Relief Program (CROP), sponsored by the Church World Service of New York City. European relief comes first so far, with Japan second, and other Asiatic countries getting lesser gifts. Between 35,000 and 40,000 bushels of grain have so far been collected, also considerable quantities of beans and dried milk. Principal items sought are wool, cotton, wheat, barley, oats, corn, beans, peanuts, other nuts, soybeans, fruits, rice, and meat. The organization concentrates its efforts in the main agricultural-producing areas of this country.

Coffee pulp's feed value

A corn-substitute cattle feed for milk production has been developed from waste coffee-bean pulp through cooperative effort of U. S. and El Salvador agricultural technicians. The new product, made from the fleshy covering of the coffee bean, can be substituted for corn, pound for pound, whereas its disposal hitherto has been a problem, only a small quantity of it having been used for fertilizer. Additional feeding tests will be made at Agricultural Research Center and various State experiment stations. If all available coffee pulp were thus used for feed it would have a nutritional value equivalent to 34,000,000 bushels of corn. For details ask Press Service, USDA, *in writing* for release No. 2499.

Corn memories

In November 1932 the Illinois College of Agriculture issued a processed circular on the use of corn (12 cents a bushel) as fuel. For your information, 50 bushels has the heating value of a ton of coal and a pound of corn, spoiled or not, equals a pound of wood. Maybe you'd like to look into this further—or would you just now?

Small forest management

Farmers' Bulletin 1989, Managing the Small Forest, tells how to manage small forest properties. It should be of special interest to our 4.2 million farmers and other owners of small woodlots, averaging around 62 acres. In 1945, 71 percent of the small owners cut their trees in such a way as to leave almost no timber values on the cut-over land; they could grow new forests only with difficulty, if at all. Only 4 percent cut wisely, leaving forests able to grow and improve. The 60-page booklet is written in nontechnical, easily read style and is well illustrated. It was prepared jointly by Forest Service, Soil Conservation Service, and Extension Service, and may be procured free from any of these agencies of USDA.

Vitamin A

A statement by our Bureau of Dairy Industry says that a national survey soon to be reported will show the average vitamin A potency of winter 4-percent milk and of creamery butter, in 21 States, to be: 1,100 International Units per quart and 11,000 I. U. per pound, respectively. Summer products run 1,800 I. U. per quart and 18,000 I. U. per pound, respectively. Differences are attributed to carotene in the feed. Milks and butters produced by cows fed only enough carotene to permit them to bear a normal calf are far below the national average in vitamin A potency. To supply milk and butter with twice the vitamin A potency now produced would require 800 to 1,000 milligrams of carotene per cow daily, or 13 to 17 times as much as that required to produce a normal calf at birth.

Food here and there

The London Economist for October 11 contained an article on The Problems of Eating, in which a table was given of "nutrients available for civilian consumption," per person per day, in the United Kingdom and the U. S. The figures ran as follows for 1947 in U. S. and 1946-47 in U. K., respectively: Food energy in calories, 3,450 and 2,680; protein in grams, 99 and 89.4; fat in grams, 144 and 110.6; carbohydrates in grams, 438 and 380.8; calcium in grams, 1.07 and 1.03; iron in milligrams, 18.6 and 17.7; thiamin in milligrams, 2.17 and 1.87; riboflavin in milligrams, 2.46 and 2.02; niacin in milligrams, 21.2 and 16.7; ascorbic acid in milligrams, 135 and 107.6; vitamin A in International Units, 9,400 and 3,763.

Growth Regulators

This is the title of a practical handbook by John W. Mitchell and Paul C. Marth of Plant Industry Station, Beltsville, Md., longtime researchers on the subject. The book tells how to use synthetic plant hormones to kill weeds, to make cuttings root quickly, to improve the storage qualities of rose bushes, potatoes, and other plants, to increase the yield and improve the quality of tomatoes, and to prevent fruit drop and hasten fruit ripening. It has only 129 pages, index included, and is well illustrated. It should be of interest to homeowners, amateur gardeners, farmers, professional horticulturists, or agricultural advisers. Simply and clearly written, it is packed with practical facts and gives lists of available chemicals, with their trade names and manufacturers. The book was published by the University of Chicago Press; procure it from the Library or buy copies from the Press (5750 Ellis Ave., Chicago 37, Ill.) or your bookseller.

Newsletter

Gerald G. Gross, former science writer on the Washington Post, now edits a Washington Report on the Medical Sciences, a weekly newsletter appearing from 1713 K Street NW., Washington 6, D. C., which would offer an occasional outlet for USDA material in the medical or near-medical field. Information people note, please.

World Food Crisis and U. S.

You will do well to procure and read the digest of the remarks made by Secretary Anderson at the Twenty-fifth Annual Agricultural Outlook Conference in Washington. He discussed the world food crisis, the Marshall Plan, and the effect of these on American agriculture. Procure this digest by *writing* Press Service, USDA, and asking for No. 2534.

Farm rehabilitation

A good discussion of Farm Rehabilitation Perspectives in the Postwar Period, by Samuel Liss of the Farmers Home Administration, will be found in the August number (vol. XXIX, No. 3) of the Journal of Farm Economics.

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FOR NOVEMBER 24, 1947

Research-Marketing Act

SECRETARY'S MEMORANDUM 1199 designated E. A. (Woody) Meyer as Administrator of the Research and Marketing Act of 1946. Only a small staff is maintained in the Administrator's office to assist in the general formulation, coordination, and direction of the program. For practical reasons the various commodities or subjects have been grouped into six general categories, an Assistant Administrator having general responsibility for each.

Henry G. Herrell is Executive Assistant to the Administrator on over-all administrative activities and also Executive Secretary to the National Advisory Committee. J. Roy Allgyer is responsible for grain, feed, and seed crops; C. O. Bratley for fruits, vegetables, and tree nuts; Maurice R. Cooper for sugar, cotton, and tobacco; and Harry C. Trelogan for livestock and animal products. Assistants for forest products and fats and oils have not yet been named. Messrs. Allgyer and Cooper, respectively, are temporarily handling matters in these two fields. These men act in their respective fields with departmental working groups and commodity committees in formulating programs, coordinating such work with the various agencies, expediting the program, and in necessary follow-up. All departmental action or operational work under the program is done by the respective subject-matter agencies. In addition to the National Advisory Committee, 19 commodity and 3 functional or cross-commodity committees have been named to get the viewpoints of private industry in carrying out the act.

Although some of the work to be done this year under the new act is basic production research, by far the greatest emphasis is being placed on new and wider uses of farm commodities and on marketing research and services. To date, 46 projects have been approved on marketing phases, 37 on new and wider uses, and 32 on miscellaneous projects other than utilization, in cooperation with the State experiment stations.

Practically all of the marketing studies will be done by Production and Marketing Administration and Bureau of Agricultural Economics, while research on new uses and production will be carried out by the research agencies of Agricultural Research Administration. Accordingly, 27 marketing and related projects have been assigned to PMA, and 19 to BAE. The majority of the projects on new uses and production are being conducted by Bureau of Agricultural and Industrial Chemistry and Bureau of Plant Industry, Soils, and Agricultural Engineering. More specifically, up to about October 15, PISAE has been assigned 18 projects; AIC 15; Bureau of Entomology and Plant Quarantine 7; Bureau of Dairy Industry and Bureau of Animal Industry 6 each; Bureau of Human Nutrition and Home Economics 5; Forest Service 4; Farm Credit Administration 4; Soil Conservation Service 3; and Office of Foreign Agricultural Relations 1. Only two projects have been assigned to Extension Service so far, but considerably more are forthcoming for that agency on the educational and demonstrational phases of the program.

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Land Policy Review

With issuance of the Summer-Fall number, the Land Policy Review, published by the Bureau of Agricultural Economics, ceases publication. This magazine began as a monthly in 1935, when problems in land economics were decidedly to the fore and bold action programs were centered on a more efficient and intelligent use of our land resources. There was need for constant interchange of ideas and information. Objectives and procedures had to be understood and promising ideas had to be examined. The Review furnished the forum. As emphasis shifted from these problems and programs and as war came on the Review became a quarterly.

Clarity

TO WRITE clearly is to think clearly. Correct language indicates a careful mind. It is impossible to believe that scientists and technicians who write foggily think clearly. Obscurity, pomposity, jargon, superfluous terminology are all marks of the fallow mind. If you must say "He was conveyed to his place of residence in an intoxicated condition" instead of "He was carried home drunk," watch out!

The late E. E. Slosson assailed the technician's passion for negatives; he formulated the following as a typical sentence, "The present writer is indisposed to deny that he is unconvinced of the necessity of refusing to accept the infrequency of negative reactions as a not insuperable argument in disproof of the theory."

The novice thus explains the reason for the new kind of report he hands in, "Due to the fact that circumstances of a certain character made it impossible for a treatise of this nature to be handled along these lines that are well established, we altered the normal procedure, so rendering it necessary to revise our viewpoints." He merely means, "Since we could not prepare the report in the usual way we tried a new one." Scientists sometimes get to mouthing phrases that mean little. To say that vitamin C is antiscorbutic acid, the substance that prevents and cures scurvy, is to add little enlightment.

We know little at first hand, much verbally; little by direct experience, much inferentially. Scientific knowledge is largely inferential; science lives in a symbolic world. As few symbols as possible should be used, and these should be capable of clear interpretation and precise definition. Too often cadence or emotion determine meaning.

Poetry is the language of emotion used at highest efficiency. The language of science drops the affective use of words to speak and write unemotionally, objectively, accurately, precisely. It is not hot or cold, but so many degrees Centigrade or Fahrenheit. Science does not say strong or weak, but so many horsepower or volts; not fast or slow, but so many miles per hour or feet per second. Nor is everything A or not A to science, which can make many distinctions and has long since found out that many things also are B and C, and even X, Y, and Z.

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COOPERATE FULLY IN THE FOOD AND FEED CONSERVATION PROGRAM TO AID THE WORLD'S STARVING.

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RMA projects

THE FOLLOWING projects have been approved under the Research and Marketing Act since we last went to press. Numbers indicate press releases giving details; procure them by *writing* (not phoning) Press Service, USDA.

Developing practical methods to reduce and prevent insect losses to stored grain and seed; Bureau of Entomology and Plant Quarantine, Bureau of Plant Industry, Soils, and Agricultural Engineering, and Kansas, Minnesota, and Georgia Agricultural Experiment Stations, others who store or handle grain outside USDA; 2379. Developing more efficient methods at lower costs for marketing feeder and slaughter livestock in Western States; Bureau of Agricultural Economics and experiment stations of 11 Western States; 2384. Utilization of barks, woods, sumac leaves, etc., in producing tanning for making leather; Eastern Regional Research Laboratory; 2394. Modifying the characteristics of domestic wool to place it in more favorable competition with foreign wool and synthetic fibers; Western Regional Research Laboratory; 2395. Developing improved packaging to reduce losses and increase efficiency of marketing and distribution of rice and dry edible beans and peas; Production and Marketing Administration; 2396. Studying the effect of increased use of corn sugar and dextrose for sweetening upon the sugar industry; PMA, BAE, Bureau of Human Nutrition and Home Economics, Bureau of Agricultural and Industrial Chemistry, Department of Commerce, trade research associations; 2402. Development of new and extended uses and markets for cereal grains, their products and byproducts; Northern Regional Research Laboratory; 2403. Development of new and improved food, feed, and industrial uses for dried beans and peas (and "splits" and hulls); Western Regional Research Laboratory; 2404. Obtaining new information about cotton insects; EPQ, PISAE, State experiment stations, chemical and insecticide manufacturing companies; 2405. Finding new and improved uses and wider markets for cottonseed and other cotton byproducts; Southern Regional Research Laboratory; 2415. Recovery of nicotine from the wild tobacco plant the Indians were using when this continent was discovered; Eastern Regional Research Laboratory; 2416. Developing new and improved uses for rice and rice byproducts, etc.; Southern and Western Regional Research Laboratories; 2418. Producing high-quality beef more economically; Bureau of Animal Industry; 2432. Study of the space requirements of farm houses; HNHE and State experiment stations; 2442.

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Feed-yeast production

M. K. Veldhuis and W. O. Gordon of the Bureau of Agricultural and Industrial Chemistry, along with the Dr. P. Phillips Canning Co., have been delving into the possibilities of producing feed yeast from citrus press juice. Such yeast is about one-half composed of high-quality protein and is also rich in B-complex vitamins, and in ergosterol which, when irradiated, produces a compound called calciferol having vitamin D-activity. A 90-pound box of citrus fruit yields about 3 gallons of press juice, rich in carbohydrates and ideal for the growth of yeast. A pound of yeast can be grown in 3 gallons of this juice, which is extracted from the ground, limed peels of the fruit. During the war, such yeast was concentrated and sold as a sirup to use like molasses, for making cattle feed. The wild yeast, *Torula utilus*, has been used in developing this promising process. For details contact Frank Teuton in AIC.

Arthur M. Hyde

ARTHUR MASTICK HYDE, who was Secretary of Agriculture from March 5, 1929, until March 4, 1933, died the night of October 17 in New York City, where he had undergone two surgical operations. Born in Princeton, Mo., he was a graduate of the University of Michigan and of Iowa University Law School; he thereafter practiced law in his home town and was its mayor from 1908 until 1910. He moved to Trenton, Mo., in 1915.

In 1912 he supported Theodore Roosevelt and the Bull Moose schism, but was later elected Republican Governor of Missouri, serving from 1921 until 1925. He caried out a vigorous road improvement and educational program and, in 1928, declined candidacy for the Senate. During the latter part of President Coolidge's Administration Mr. Hyde supported him actively in his opposition to the "equalization fee" feature of the McNary-Haugen legislation.

When he became Secretary of Agriculture, Mr. Hyde announced that he would make few political appointments and he kept his word. He was active in effecting the wider dissemination of scientific and technical information among farmers, and in furthering cooperative marketing. Since his retirement from office he had been practicing law in Trenton, Mo. In 1927 he became president of the Sentinel Life Insurance Co. of Kansas City, Mo., and he was also active in the automobile business at one time.

Mr. Hyde was master of the salty phrase, a good churchman—he taught a large Sunday School class while in Washington—and an adverse critic of what he regarded as dangerous trends in modern physical science.

Phone courtesy

A WAGGISH writer for a New York newspaper recently began an article on "How To Be Courteous Though Phoning" by asking:

"When the phone rings, do you shift your pipe, gum, or cigar to starboard and mumble into the receiver: 'Frammis glub ziblitz. . . . Whossit!' Or are you one of those comedians who grab the receiver and punish it with: 'For whom does the bell toll?' or, perhaps, only a mere 'Beat your gums, Bud!'" He then suggested a reading of an article in the telephone company's "Review" to help you if your telephone discourtesy is showing.

The article dealt largely with John Q. Citizen's irritable approach to the gradually vanishing telephone operator and his (possibly also her) tendency to detonate into incredible rages at minor frustrations—all of which we Government workers should also avoid. Other helpful thoughts are: Identify yourself promptly to the caller and end your conversation definitely with "Goodbye," so the other person will know when to hang up; don't dial too soon—wait for the dial tone and avoid frantic nervous eruptions.

Finally, we are told that haughty secretaries who insist upon knowing who's calling (prior to the brush-off) top the list of phone incorrigibles. *But why not identify yourself immediately, whether calling or answering the phone?* That is by all means the best policy. So much for a New York newspaper and the telephone company. For your purposes, the instructions we have previously mentioned, devised by workers in USDA's Office of Personnel will be quite satisfactory. White or call Charline E. Lynch.

W. W. Swett

SWETT IS a dairy husbandman in Bureau of Dairy Industry's Division of Cattle Breeding, Feeding, and Management. His original assignment was the broad one of discovering any internal, external, or other anatomical features of the dairy animal's structure that could be used as a reliable measure for evaluating milk-producing ability, in lack of production records. Out of this assignment came a wealth of new information and soon the ante and post mortem data on a thousand individual animals with production records will be completed, with 120 items on each. Some of the data already made available are being used by numerous State experiment stations.

One important though as yet inconclusive development has been the discovery that the thyroid glands of cows from some BDI stations in the South are notably smaller than those from cows at Beltsville, and this gland plays a role in milk production. Swett's udder studies have demonstrated that, contrary to common belief, milk is not manufactured during the milking process. This finding has formed a basis for research in the physiology of milk secretion, and in milking methods.

When the current research projects are completed within 5 years or so, important applications will follow. It is anticipated that a palpation method will be developed which will enable the operator to foretell the future producing ability of a 4-month-old heifer. Swett and his associates have done an outstanding research job in a very difficult field.

50 years ago

IN 1897 "Tama" Jim Wilson, Scottish-born and called Tama after the Iowa county from whence he came, had been appointed Secretary of Agriculture, by President McKinley, on the advice of Henry A. Wallace's grandfather, "Uncle" Henry Wallace. He was extremely well equipped for the job and he held the post longer than any other Cabinet officer ever held any Cabinet post. In his annual report for this year he announced that a scientist had been appointed to travel and to supervise plant and seed introduction—David Fairchild.

In this first annual report he also discussed the fact that the farmers' homes needed improvement and suggested that work in home economics be undertaken especially directed at raising the farm family's living standards. He wanted seed distribution restricted to the sending out of imported seed. He declared that the Department's publications were inadequate to cope with the growing demand for them.

A Division of Ornithology and Mammalogy had been established under C. Hart Merriam, who was head of the Division of Biological Survey. Dr. Atwater was in charge of the Office of Experiment Stations and Milton Whitney of the Division of Soils. The appointment clerk reported that the Department had 2,443 employees and the annual pay roll was $1,868,180.

About this time the USDA consisted of: Weather Bureau, Bureau of Animal Industry, Division of Gardens and Grounds, Division of Chemistry, Division of Entomology, Division of Statistics, Division of Botany, Dvision of Accounts and Disbursements, Division of Forestry, Division of Biological Survey, Division of Pomology, Division of Vegetable Physiology and Pathology, Office of Experiment Stations, Office of Fiber Investigations, Division of Publications, Office of Road Inquiry, Division of Agrostology, Division of Soils, Section of Foreign Markets, and the Library and the Museum.

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Grain conservation

Assistant Secretary Charles F. Brannan has been appointed by Secretary Anderson to coordinate all efforts of USDA in grain conservation, to bring them into harmony with the President's program and the active campaign being waged by the Citizens Food Committee. Said the Secretary in his Memorandum of October 17: "I desire to make sure that Mr. Luckman has the most unified, coordinated, aggressive support that the Department can give him. To be effective, that support must be channeled through one person and coordinated so that there is no confusion."

Dr. Stiebeling attends FAO

DR. HAZEL K. STIEBELING, Chief of our Bureau of Human Nutrition and Home Economics, attended the meeting of the Nutrition Advisory Committee of Food and Agriculture Organization of the United Nations, held in Geneva, Switzerland, this past September 10–19. En route home she visited England and Scotland and found rooms cold, especially in Scotland, and the food affording adequate subsistence but monotonous. However, the quantities of hot tea offered her, in some miraculous way, for fuel is hard to come by, helped sustain her normally excellent spirits.

In Geneva—which she described as almost tropical by comparison—the Standing Advisory Committee on Nutrition considered a report of Dr. W. R. Aykroyd, Director of FAO's Nutrition Division, on progress made during the previous year. Some 23 documents were brought to the attention of the committee by the Nutrition Division. The committee's chief task is to make recommendations to the Director General of FAO regarding the general direction and scope of the work to be undertaken by the Nutrition Division.

The Standing Advisory Committee on Nutrition serves at the invitation of the Director General for a limited period. It is at present composed of 14 persons from 11 nations, and Dr. Stiebeling found the friendly exchange of international views stimulating and helpful.

Brief but important

Dr. Ockey to State

Dr. William C. Ockey resigned as Director of Marketing Research Branch of Production and Marketing Administration and joined the State Department on October 8. He is scheduled to go to Vienna in December as First Secretary and Counsel. Dr. Ockey was with the Extension Service, Food Distribution Administration, and Production and Marketing Administration, for a total of nearly 15 years.

Timber cut

The timber cut from the National Forests in the quarter ended September 30 was 1,127,000,000 board-feet, an increase of 24 million board feet above the same quarter last year. The value of the cut also increased $867,000 to a total of $5,430,000. The bulk of the increase came from Washington and Oregon. The cutting is at a rate of 4 billion board-feet for this fiscal year which began July 1, 1946.

World cotton production

This is now estimated at 26.1 million bales for 1947–48, or 21 percent above the previous year's exceptionally small crop of 21.5 bales. For details get No. 2447 by *writing* Press Service, USDA.

Do not disturb

Tread gently in the winter woods. Those trees are asleep. No, fortunately they don't snore, but USDA's Dr. H. L. Crane, Bureau of Plant Industry, Soils, and Agricultural Engineering, says trees usually take a rest, go into a sort of hibernation, before they resume growth and other active processes the next season. During this period buds will not open and grow even if conditions are favorable. Length of the period varies; some trees need more sleep than others—the almond, two or three weeks; the butternut, commonly three or four months. The Eastern black walnut requires more rest than most Persian walnuts, which require more than the southern California black walnut. Growth renews in the spring when conditions are favorable to awaken the trees. Short daylengths put the tung to sleep, and so on. Knowledge of the rest period aids in predicting cold injury and explaining why certain plants thrive in certain climates.

Simple life

The recent death of Mrs. Grover Cleveland reminds the editor of a time long ago when his father was a food saleman for a big Washington firm. The firm supplied many wealthy patrons; it desired also to supply the White House. The editor's father was elected to phone there to the steward. Having done so, it gradually dawned on him that the phone had been answered by President Cleveland himself who, sensing his caller's embarrassment, genially called the steward and all was well. The sale was made. Those were, indeed, the days of sweet simplicity. Incidentally USDA's old Red Brick Building got its first telephone in 1879.

History of USDA

USDA Document No. 4, Condensed History of the U. S. Department of Agriculture, which offers good material for the orientation of new employees, is again in fair supply. That means order up to half a dozen copies by *writing*, not phoning please, to T. Swann Harding, Office of Information, USDA, Washington 25, D. C. Should you need a considerable number of copies for special purposes we suggest you have a stencil cut and run copies yourself.

Persons in charge of USDA

USDA Document No. 3, Biographies of Persons in Charge of Federal Agricultural Work, 1836 to Date, has been revised, because of the deaths of former Secretaries Gore and Hyde, and is again in fair supply. It comprises biographies of the Commissioners of Patents, Superintendents of Agriculture (in the Patent Office), Commissioners of Agriculture, and Secretaries of Agriculture. Procure by *writing* (not phoning, please) T. Swann Harding, Office of Information, USDA, Washington 25, D. C.

Animal physiology

The British Agricultural Research Council, with support of the Ministry of Agriculture and Fisheries and the Department of Agriculture for Scotland, has cited the need for a new Institute of Animal Physiology which will be established, with Prof. I. de Burgh Daly of Edinburgh as director. It will study the fundamental normal and abnormal physiology of farm animls. Prof. Daly, a physiologist, will have as his principal aids a biochemist and a pathologist.

A woman's suit

How To Tailor a Woman's Suit, Miscellaneous Publication 591, is a singularly attractive and informative illustrated pamphlet on the subject by Margaret Smith, Clothing Specialist in our Bureau of Human Nutrition and Home Economics.

Apple juice survey

The Eastern Regional Research Laboratory near Philadelphia has just announced the results of its survey of apple juice packed in 1946. Results indicate a trend away from deaeration (removal of air) and towards the use of ascorbic acid and the centrifuge. No apparent relationship was found between the flavor score of the juice and the variety of apples used, treatment before pasteurization, type of container, deaeration use of ascorbic acid, filtration, whether the juice was clear or cloudy, and size of the processing plant. The juice maintains its flavor better when stored around 35° F. than when stored at 75° F. Juices with a Brix above 13 are also usually better flavored than those below.

Using alfalfa industrially

What won't they think of next? Now the Western Regional Research Laboratory has developed a new method of processing fresh-cut green alfalfa to open industrial outlets for such products as alfalfa proteins and pigments. The possibilities of alfalfa products in the human diet and as nutrients for the production of antibiotics are also being investigated. The new process first concentrates the most valuable parts of alfalfa and then dehydrates this high-value fraction, leaving the less valuable portions for feed use near where grown. For details of the process get No. 2421 by *writing* (whether in Washington or in the field) Press Service, USDA, Washington 25, D. C.

Film users

If interested, ask Chester A. Lindstrom, Chief of our Motion Picture Service, about his Letter to USDA Film Users which contains much information of value to all who use our movies.

Tree planting machine

Three planting machines will put in three rows of a shelterbelt a mile long in a little over an hour. They will plant trees too on hills and other places where there aren't too many big rocks and roots. How some of these machines were developed, how they work, what they cost, how many trees they will plant under different conditions and how they are owned and operated is told in Foundamentals of Mechanical Tree Planter Design and Performance by H. D. Bruhn and F. B. Trenk of the University of Wisconsin, in Agricultural Engineering for September 1947.

Opportunity

No one has yet designed and manufactured work shoes suited to the active life of farm women—sturdy, moisture-proof or moisture-resistant, with flexible soles and medium heels, comfortable but trimly shaped toes with reinforced tips, durable uppers with some ventilation, scuff- and moisture-resistant finish, proper arch support, and neat, attractive, foot-flattering lines. Here's a chance for somebody.

Rats!

Fish and Wildlife Service, Department of the Interior, estimates that rats eat or destroy 200 million bushels of grain a year. Hence, merely preventing that loss would save a hundred million bushels a year. In little Delaware alone its near half-million rat population will polish off 2 million dollars worth of the food supply this year unless curbed.

Geneva FAO Conference

The editor of *USDA* has for distribution a few copies of a publication telling what the Third Session of the Conference of the Food and Agriculture Organization of the United Nations did in Geneva between August 25 and September 11, 1947. If you want a copy *write* in as indicated bottom last column, page 4, this issue *USDA*.

Informative speech

Secretary Anderson delivered an informative and well-organized speech at the Phoenix meeting of the National Reclamation Association, October 30. It dealt with what the USDA had done in the field of reclamation and suggested what it can do in future. Specific mention was made of work of Forest Service, Soil Conservation Service, the Agricultural Conservation Program, also the soil surveys, rural electrification, the Regional Salinity Laboratory at Riverside, Calif., and the Bureau of Agricultural Economics. You should acquaint yourself with this material; *write* Press Service, USDA, for No. 2472.

Lymphomatosis

According to an article in Science for October 24 this disease has been controlled genetically, in poultry, by F. B. Hutt and R. K. Cole of Cornell's Department of Poultry Husbandry. The USDA has a laboratory at East Lansing, Mich., which devotes itself in the main to research on this disease. Its Director, Berley Winton, has estimated that the disease, characterized by the accumulation of undifferentiated lymphocytes in the nerves, viscera, or iris, causes an annual loss exceeding 50 million dollars to the United States poultry industry.

The American Farmer

This book (published by Harper and Bros.) on the problems and prospects of the American farmer by Lee Fryer, with illustrations by Lloyd Hoff, is dedicated to the employees of the Farm Security Administration (now Farmers Home Administration). In spite of the dim view presented of the small farmers' future Fryer does not believe all hope is lost. He is convinced that the family farm can endure and can be made into an efficient unit with rural people enjoying good homes, hospitals, medical service and schools, provided that the people themselves organize in their own behalf. He feels that the task of rebuilding rural America is primarily a community job. The book has relatively few pages (163) but these are packed. It is written clearly and readably.

Agricultural climatology

Iowa State College has recently awarded a half dozen degrees in this subject, the new course having been worked out cooperatively with the Weather Bureau. Plans for the course were initiated by H. C. S. Thom of the Weather Bureau and Dean R. E. Buchanan of Iowa State's Graduate School, in the fall of 1944. This reminds us that USDA's work on soil began with studies of climate and soils started by Milton Whitney in the Weather Bureau when that bureau formed part of USDA.

Fred Lees

Mr. Lees retired at the end of October after more than 45 years in the Department, 36 of them in the Office of the Solicitor. He entered USDA as a clerk-stenographer in 1902, and later held administrative posts in Forest Service before entering Sol. in 1911, where he long headed the FS Section. He was entertained at luncheon by the Solicitor and staff October 29.

WANTED! Agricultural Yearbooks!

Many of the Agricultural Yearbooks for past years are almost or entirely exhausted. E. G. Moore, Agricultural Research Administration, USDA, gets requests from worthy people for these books from time to time and by careful distribution could place them where they would be of the greatest value to the greatest number. So if you have one or more of the Yearbooks from 1936 to date to spare, put them in the mail for Mr. Moore, or phone extension 3683 and he will send for them.

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On October 23, President Truman and members of his Cabinet lunched at USDA with Secretary Anderson and his aids, in honor of the Secretary's 52d birthday. It was poultryless Thursday. Fish was served.

Incidental intelligence

Animal specialists of the States and USDA say that 98 percent single births are the record for dairy cows, 99.5 percent for beef cattle. Most of the rest are twins. Triplets occur at a rate of 1:100 for dairy cows and quadruplets 1:14,000. For goats, 61 percent of births are twins, 22 percent triplets, and 0.6 percent quadruplets.

Psychic Income for Employees

The Journal of the American Dietetic Association is a most unusual place to look for material on personnel problems, but the article of the above title in its October issue is both informative and inspiring. You are urged to procure the periodical from the Library and read this remarkable discussion of relations between supervisors and other employees; it is by Helen Esray-Chase, Associate Personnel Analyst, Personnel Council, New York State Department of Civil Service, Albany, N. Y.

Material you should read

Marketing Activities for September (a monthly obtainable from Production and Marketing Administration, USDA, Washington 25, D. C.) contains considerable material it would be useful and informative for employees to read. PMA's Assistant Administrator for Marketing, Dave Davidson, writes on Marketing Full Production. Then there are three articles on the Research and Marketing Act of 1946, the first discussing progress under it, the second projects so far approved, and the third dealing with the committees that recommend projects to be pursued.

Cotton quality

If interested in the staple length and quality of cotton being ginned this year get No. 2397 by *writing* Press Service, USDA, or procure a full report from Cotton Branch, Production and Marketing Administration.

Saving grain

Here are two press releases, Nos. 2466 and 2467, which will give you some ideas about saving grain. The first deals with substituting forage for grain; the second with methods of preventing grain waste by insects, rats, and molds. The details are too involved to present here. If interested, get the releases by *writing* Press Service, USDA, Washington 25, D. C. Write, please, in lieu of phoning, whether in Washington or in the field.

Honor Awards Program

With the next issue of *USDA* there will be mailed a complete statement on the Honor Awards Program and related personnel matters. Meanwhile you can request Press Service, USDA, *by mail*, to send you Press Release 2577 which tells how the awards were made and to whom, on November 12.

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USDA

FOR DECEMBER 22, 1947

Foot-and-mouth queries

A *USDA* correspondent notes with lively interest that "shop foremen" and "yardmen" are employed in the project in Mexico where the United States is helping its southern neighbor eradicate foot-and-mouth disease. What are those employees doing down there is the specific question—and a very easy one to answer. The correspondent asks also about the Comisión Mexico-Americana and its functions.

The suppression of foot-and-mouth disease calls for the prompt destruction of infected and exposed animals. Science has shown this method to be the most thorough, in fact the only one fully effective. Stamping the infection out in Mexico means greater safety to the livestock industry of the United States. The usual method of disposal is slaughter and deep burial, with quicklime added to carcasses. Cleaning and disinfection of premises follow. These operations call for lots of equipment and supplies—rifles, ammunition, power shovels, bulldozers, trucks, jeeps, disinfectants, pumps, tanks, and scores of other items. Procuring and maintaining all that equipment require the services of experienced engineers, mechanics, shop foremen, and yardmen.

Many work at a central equipment depot and automotive repair shop in Mexico City; others are in the field. These essential workers aid the veterinarians, the main key employees who direct field operations. Sanitary technicians, appraisers, paymasters, and other trained workers complete the organization. Units of the Mexican National Army help, too, by maintaining quarantine and performing guard duties. In general charge of the project is a joint commission mentioned above, in Spanish, composed of the Mexican and United States officials. Our name for it is: The Mexican-United States Commission for the Eradication of Foot-and-Mouth Disease.

Late in November officials of the two countries agreed to change their plan of controlling the disease in Mexico and they are endeavoring to develop the best possible alternative plan for checking the spread of the disease and keeping it within the present quarantine area. Vaccines have not been authorized previously as a control measure in Mexico, because their use has not been regarded as favorable to complete eradication of the infection. The official consultations now in progress, include vaccination together with strengthening of quarantine lines and any necessary slaughter of infected and exposed animals.

The Bureau of Animal Industry issues detailed mimeographed reports, about once a month, on the progress of the eradication work. For basic information consult Farmers' Bulletin No. 666, or Research Achievement Sheet No. 29A. Write or call Information Division, BAI, Ext. 5787, for the mimeographed reports.

USDA food holdings

THE STORY has gone around that, if the USDA would just release its food holdings, prices would come down and more people would be happy. It is implied that the Department has "hoarded" huge quantities of food. So the Secretary had a check made recently to see what stocks Commodity Credit Corporation was holding. The figures themselves appear relatively large at first glance.

Actually the total price-support foodstuffs held by the Department amounted to one-tenth of 1 percent of the Nation's total 1947 food production. In short, and in terms readily understood, if all the stocks were released at once, they would provide the equivalent of one square meal for each of us and the stocks represent a third of a day's national consumption. But it is not that simple.

For instance, we hold no shell eggs suitable for consumer distribution; we hold dried eggs already offered for export, or frozen eggs in large containers which are being offered for domestic sale now when egg production is low. We hold late-crop potatoes for winter use and "farmer stock" peanuts not yet processed into either edible or oil form. It is clear that reports of our price-support stocks on hand are greatly exaggerated. Moreover prices have generally been above the mandatory level, hence have not required extensive support programs.

SCS now

THE SOIL Conservation Service is depending on intensified effort and increased effectiveness to keep its total technical aid to farmers at least up to the level of last year's accomplishments, though this assistance must be spread thinner in attempts to meet increasing demands.

All but a small part of SCS facilities, consisting principally of technical personnel, are made available through farmer-voted and farmer-managed Soil Conservation Districts, at their request. Between 15 and 20 new districts continue to be organized each month. On July 1, 1947, they totaled approximately 1,900 and included more than a billion acres. Thus the average assistance available per district is limited automatically in direct ratio between the number of such districts and numbers of SCS personnel. The 1947–48 goal set at the start of the fiscal year, when the appropriation figures were known, was approximately 20 million acres to be treated with the Service's assistance. The appropriation for such operations is $38,000,000.

Other SCS programs are:

Research: This essential phase of the Service's work is concerned, as in the past, with the most immediately pressing problems, with a necessary reduction in the number of projects as compared to the preceding fiscal year's activities. Research funds available total $1,048,000.

Land utilization: Maintenance and grassland development work on nearly 2 million acres of Government-owned submarginal lands will be carried on, but to a reduced extent because of certain imperative structural-repair expenditures which take priority. Total money made available for this program was $1,600,000. No land-purchase funds are available.

Water conservation and utilization: Work under this authorization will continue, with $624,201 available for the fiscal year. It consists of the development of land for irrigation purposes, including dividing the land into suitable family-sized units and the sale of such improved farms to veterans having purchase preferences. Nineteen such projects are authorized in the 17 Western States.

Flood control: SCS, in cooperation with the Forest Service, is doing flood-control operations work in 11 watersheds, as authorized under the 1936 and 1944 Flood Control Acts, in addition to continuing investigations and surveys in about 50 additional watersheds. Funds available to the SCS for this work during the present year total $4,452,330.

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Spreading the risk

LAST YEAR the United States shipped the largest quantity of food ever sent from any one nation in any one year, 19 million tons—40 tons a minute; 80 percent of this consisted of grain, mostly wheat. For the period 1934–38 annual world exports of all grain averaged 28,387,800 long tons, of which the U. S. supplied 4.6 percent. During the 1946–47 crop year, surplus-producing shipped to deficit nations 28,387,800 long tons of grain, of which the United States alone supplied 52.4 percent. These figures speak for themselves.

True, our farm output rose 13 percent above prewar in 1941 and 36 percent by 1944. But we have also had 10 straight years of good crop weather and a Congress that wisely provided support for prices of war-expanded commodities for 2 years following the official end of World War II hostilities. Things were very different after World War I when, in the 13 months between May 1920 and June 1921, prices farmers received fell 52 percent while prices of the things they bought dropped only 18 percent. Recently most farm prices have remained well above support levels; but our heavy farm production has exacted a toll in soil fertility.

Moreover, in spite of all that we have done, the peoples of war-devastated countries have received neither as much food as they needed nor as much as they were eager to buy. Yet "we have been gambling against nature for 10 years now" and ultimate crop failures are inevitable. "The margin of safety in food supply in too much of the world depends upon good weather and good luck in production in this country." Hence we must spread the risk further of aiding world recovery. For more detail on how this should be done procure Secretary Anderson's important policy talk delivered in New York City, November 20, and called "Spreading the Risk of World Recovery." *Write* Press Service, USDA, and ask for No. 2645.

Hydroponics

The other day we noticed an advertisement in a magazine because it was headed "Where 'The Good Earth' is H O." It turned out to be an account of how the Quartermaster Corps—in far-off Iwo Jima, Japan, and Korea—grows vine-ripened, garden-fresh salad vegetables in *water*—instead of soil. It then went on to describe the method called hydroponics—growing vegetables in water containing chemical salts. Finally, the advertisement mentioned that in doing this, the scientific genius of civilian research specialists (meaning those in USDA) had been drawn upon. The advertisement was signed by the United States Army and Air Force Recruiting Service.

Miss Hall in Holland

WHEN THE Associated Country Women of the World met in Holland for its Fifth Triennial Conference, September 8, 550 women from 22 countries were in attendance, representing various country women's associations, societies, and clubs. The last meeting was in London in 1939—before the scourge of war and destruction had enmeshed the world—so it was only natural that much of the discussion centered around ideas for solidifying world peace. Florence L. Hall, Extension Service Field Agent, represented the Department of Agriculture, making the trip at her own expense.

Two significant resolutions that the conference considered were one urging women throughout the world to use their leadership toward the avoidance of future wars, and another calling for continued studies leading to development of a common world language to overcome much misunderstanding that leads to war.

The Associated Country Women of the World is a league of groups rather than individuals, with international headquarters in London, and a membership fast approaching 5 million. It is organized primarily to foster friendly relations between groups of country women of all nations and to aid in forming new organizations of them where they are not already organized. The election of Mrs. Raymond Sayre, the first American president of the association, was a real event. She is an Iowa farm woman whose training and experience in organization eminently qualify her for its leadership.

Miss Hall reports that the American delegation—85 women, including 10 home demonstration workers—were very pleasantly entertained by Dr. William H. Riddell, United States agricultural attaché in Holland, whose headquarters are at the Hague. He accompanied the delegates on a tour of the industrial and agricultural exposition, then on display there. Miss Hall observed that the spirit of the Dutch is high and Holland's comeback after 5 years of occupation is remarkable. The Dutch people are imbued with courage and a cheerful good nature that enable them to take rationing of the short food supply and the other aftermaths of war in stride. Flowers are a big business here, and fruit farming is another important industry.

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Decision for Bill

"A Decision for Bill" is the title of a new and effective USDA movie depicting a decision made by a university senior seriously to consider some branch of the Department's work as his lifetime career.

Death to bloodsuckers

EXPERIMENTAL work by scientists in the Bureau of Entomology and Plant Quarantine shows that infinitesimal and apparently harmless doses of some of the newer insecticides may be fed to rabbits and will render their blood lethal to typhus-carrying lice and yellow-fever-carrying mosquitoes. But don't try this on your dog or any other domestic animal yet. The work is still in the experimental stage, though the initial findings indicate that something paralleling the use of the sulfa drugs and of antibiotics may be in the immediate offing. The method is novel; the experimental results are highly significant.

But please remember: No practical applications of these results have yet been attempted—either in human or veterinary medicine, or in the field of pest control. However, the findings do open a new field of investigation in medical and veterinary science, entomology, and chemistry. One pest killer, identified chemically as 2-pivalyl-1, 3-indandione, was by far the most effective against the louse, registering a 100-percent kill of these bloodsuckers when present in a rabbit's blood in a dose equivalent to five millionths of the animal's weight, and even slighter doses enabled the animal to build up a reserve of louse poison in its blood.

Thirty-three chemicals have been tested against the louse, 31 against the Aedes mosquito, benzene hexachloride being by far the most effective against the latter. While further studies are under way on the toxicology of the chemicals used and other phases of the treatment, a wholly new method, deadly to blood-sucking insect pests, may finally be evolved for widespread use. The work was reported by E. F. Knipling, R. C. Bushland, F. H. Babers, G. H. Culpepper, and E. S. Raun. You will find details in press release 2685; procure it by *writing*, not phoning, Press Service, USDA, Washington 25, D. C.

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Practical information

Food and Home Notes for October 22 release tells the housewife how to deal with grass-fed beef, explains the sweetness of the parsnip, and shows how rhubarb may be used to protect the teeth against erosion by acids. Address inquiries to Helen C. Douglass, Press Service, USDA, Washington 25, D. C.

Maryland

Russ Lord, former USDA employee, covers the State of Maryland ably in November Holiday, naturally saying a good deal about farming. Lovers of Baltimore will find this city well-sketched in an article in the same issue.

Brief but important

Can or tin

What is this lacquered container for nutritious substances, a can or a tin? Quite an argument has raged about this in England and reverberations actually reached the dignified columns of the London Times. The Ministry of Food is said to have mistaken cans for tins, and the cannites are purists who argue that the containers were originally sheet-steel canisters thinly coated with tin, but the tinnites say that "can" is mere transatlantic slang. How do USDA English experts feel about this earth-shaking question?

Mules a luxury?

Yes, if they stay on the farm after the tractor arrives, according to a study made by Bureau of Agricultural Economics and the South Carolina Experiment Station. Mules on 131 tractor-equipped farms in Anderson County, S. C., worked an average of 36 days a year, ate 365 days a year, consumed food worth almost $150 at farm prices, hence it cost 41 cents an hour to "operate" them, as compared with 23 cents an hour for fuel for a small tractor. Some mules worked only 20 days anually and their feed bill averaged 75 cents per hour of work.

Grain conservation

A Grain Conservation Handbook, 1947–48, has been issued by the Office of the Secretary, replete with information on the subject and reasons for the program. It not only tells farmers how to conserve grain, but fills in the background on what caused the world food crisis, the effects of the stringency on afflicted populations, and the distribution pattern of the grain to be exported. Procure this handbook from Information Branch, Production and Marketing Administration.

Stuart A. Postle

Mr. Postle, who entered the old Bureau of Chemistry the same day with present Commissioner of Foods and Drugs, Paul B. Dunbar, died in retirement a short while ago. Entering the old bureau July 29, 1907, he retired only 2 years ago, in obvious good health. He was long Chief of Food and Drug Administration's Cincinnati Station. He was just about to be elected mayor of West Jefferson, Ohio, his home town, where his death occurred.

Dr. McKain to Storrs

Dr. Walter C. McKain, Jr., of the Bureau of Agricultural Economics resigned on November 1 to become professor of rural sociology in the University of Connecticut at Storrs. Dr. McKain, who completed both his undergraduate and graduate work at Harvard, has been engaged in farm population and rural life work in BAE since 1938: as regional leader at Upper Darby, Pa., and at Berkeley, Calif., and, for the past year, as head of the section on levels and standards of living in the Washington, D. C., office.

Bachman Back from Harvard

Kenneth L. Bachman is back at his desk in farm management, Bureau of Agricultural Economics, after a year of graduate study at Harvard, where he held a fellowship award from the Social Science Research Council. Except for about 2 years in the Navy and the past year at Harvard, he has been with BAE since 1938, including 2 years in BAE field offices. Mr. Bachman graduated from Oklahoma A & M in 1936 and took his master's from Illinois in 1938. His recent stay at Harvard satisfies residence requirements for his Ph. D. A native Oklahoman, his work in BAE deals mainly with research and farm management problems of the South.

The American Radio

This book by Llewellyn White, published by the University of Chicago Press, is highly recommended by Kenneth M. Gapen, Chief of USDA's Radio Service, as required reading for students of radio, psychology, sociology, journalism, public affairs, and mass communication. He commends it likewise to the ordinary citizen who would like to have a better understanding of the radio in these United States.

Elkanah Watson

Agricultural History for October 1947 (vol. 21, No. 4) contains an article entitled "Elkanah Watson's Activities in Behalf of Agriculture," by Hugh M. Flick, who has produced an unpublished monograph on Watson's career. Watson was a remarkable individual who promoted the first agricultural fair, in the Berkshires in 1810; who performed agricultural experiments, and published the results in pamphlets which he distributed at his own expense; who advocated progressive agricultural legislation; and labored for better canals, turnpikes, and railroads in aid of farmers. In 1820 he predicted that there would be 133 million people in the United States by 1930. A native New Yorker, Watson lived near Pittsfield, Mass. Flick's article is recommended to your attention.

First insured mortgage loan

There was quite a ceremony, October 3, at Americus, Ga., when Robert A. Hale, a native Georgian, became the first person in the United States to achieve farm ownership under Farmers Home Administration's insured mortgage loan service. Present were Senators Walter F. George and Richard B. Russell, Representative Stephen Pace, Gov. M. E. Thompson, President H. L. Wingate, of the Georgia Farm Bureau, FHA Administrator Dillard B. Lasseter and its State Director, R. L. Vansant, plus farmers, bankers, insurance executives, representatives of the press and of agricultural agencies. Incidentally, get County Gentleman for October and read how FHA provides tenant farmers with a ladder that enables them to climb up from tenancy to ownership; the article attracted wide attention.

Can't keep 'em down

We just saw a letter from H. A. Allard, photoperiodism's codiscoverer, now living in quiet fireside retirement—well he's warm, if not at the fireside, for he's mountain and valley-hopping in the Dominican Republic—temperature 93°F., water in brook 85° F., humidity—a fog. Unsophisticated wasps have been stinging his eyes shut as he collects mosses and lichens, and he had a furious brawl with a sandbox tree. This vicious woodland treasure has poisonous sap, toxic seeds, intimidating spines, and a capsule that explodes. So Dr. Allard got the sap on him, ate some of the seed, got in range of the shrapnel, fell into a branch, stabbed two deep holes in his palm, and enjoyed the affray hugely, finding it very educational. Dr. Allard has other tropical explorations in mind which his son, "softened by age," says are impossible. That's the way our retired scientists live—peace, quiet, tranquility, and a fireside chair.

Programs! Programs!

Possibly a few of you, especially in the field, may not have seen the rather handsome program issued in connection with USDA's Honor Awards Ceremony at the Sylvan Theater, Washington, D. C., November 12. The editor has pursuaded Office of Personnel to let him have a few copies of it and, if you want it enough to write in to him, as per bottom last column page 4 this and every issue of *USDA*—first come, first served. You can't follow the events without a program!

IEFC to FAO

The International Emergency Food Council, by unanimous vote November 11, recommended its own dissolution and transfer of its functions, organization and staff to a new International Emergency Food Committee of the Council of the Food and Agriculture Organization of the United Nations. We have a few copies of the document telling about this transfer. For a copy *write, please do not phone,* T. Swann Harding, Office of Information, USDA, Washington 25, D. C.

Statlab visitors

The following recently visited the Statistical Laboratory at Iowa State: Dr. Frank Yates, Rothamsted Experimental Station, England; Dr. P. V. Sukhatme, Ministry of Agriculture, India; Drs. Cenek Adamec and Ivan Viden, Czechoslovak Institute of Public Opinion, Prague. Dr. Yates also lectured at Iowa State; Drs. Viden and Adamec told how public opinion polls got started in Czechoslovakia; and Dr. Sukhatme, after participating in the International Statistical Conference in Washington, visited Ames to study recent activities in this field there.

Flying beetles

This summer Bureau of Entomology and Plant Quarantine inspectors stopped the projected flight of 2,800 Japanese beetles which were trying to hitch-hike by airplane from beetle-infested airfields in Washington, Baltimore, Philadelphia, New York, and Newark, to beetleless sections of the United States. They closely checked 7,000 flights. They supervised the application of a thin film of DDT from aersols over hundreds of commercial—both freight and passenger—and military planes. They sprayed with DDT the beetle's favorite food plants in the immediate vicinity of heavily infested airfields, using mist blowers for the job. The past summer's program for preventing beetle spread by airplane was the most comprehensive yet attempted; it also yielded the largest number of interceptions for any season since this type of work became necessary.

New OFAR mag

In January 1948 the Office of Foreign Agricultural Relations will issue a magazine which will be a consolidation of Foreign Agriculture and Agriculture in the Americas. While it is to be entitled Foreign Agriculture, it will carry the type of articles formerly appearing in the two previous magazines. In style and format it will follow closely that of Agriculture in the Americas. Paid subscriptions are obtainable from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Write Office of Foreign Agricultural Relations, USDA, Washington 25, D. C., for a sample copy if interested.

Typist, stenographer, secretary

Civil Service requires a stenographer first to get a passing mark in typing; failing that, competitors automatically fail in the entire exam. It has found that there are individuals who have unusual coordination of brain and hands enabling them to type rapidly and accurately any material they can see, but who rarely if ever make good stenographers or secretaries. Also there are excellent stenographers and secretaries who merely do an acceptable typing job, but cannot compete with the first-mentioned group in speed or accuracy. Yet the best stenographers and secretaries should be able to type accurately and with reasonable speed. Mediocre typing skill will not enable them to do their other jobs satisfactorily. So says Civil Service. We'd go further and say that nearly everyone who works in an office, in whatever capacity, should learn to type accurately and rapidly, for that skill is a mighty big help in any office job.

Tom Campbell, author

T. M. Campbell (Extension Service) has set down the fascinating saga of his work in cooperative extension in a personal account of his career, his successes and his public life, in a 64-page booklet, The School Comes to the Farmer, published by Longmans Green, 55 Fifth Avenue, New York City 3, and also available from libraries and your own bookstore. Tom, who has made a historic contribution to the advancement of colored people by showing thousands of them how to become successful farmers, is himself a great gray-haired, stoop-shouldered institution, but just about the most human one you ever chanced to meet. His personal charm is exceeded only by that of his wife and daughters.

New insecticide project

A project for developing improved equipment and suitable formulations for applying the newer insecticides and fungicides has been approved under the Research and Marketing Act, and will be carried on cooperatively by our Bureaus of Plant Industry, Soils, and Agricultural Engineering and Entomology and Plant Quarantine, with the Idaho, Oregon, Washington (and other) agricultural experiment stations. Get release 2689 from Press Service *by mail* for details.

Weed seed oil

Ernest B. Kester of our Western Regional Research Laboratory recently reported on the production from the seed of a weed, common in California and the Northwest, of a valuable oil similar in character to rape and mustard oils, of which we have insufficient for lubricating and edible-oil purposes. The new oil is made from pennycress (also called fanweed French-weed, dish mustard, and treacle wart) which has become a serious problem in grain fields and can cause a heavy dockage of wheat. Thus a common nuisance may become raw material for the production of a valuable vegetable oil, and possibly other weed seeds may be processed to yield useful oils later.

Safety

The USDA Safety Council holds monthly meetings to discuss and later publicize information on this subject. At a meeting held in November such subjects were discussed as the organization of Jack County, Texas, Rural Fire Fighters, Public Building Construction for Fire Safety, the proper use of poisons to eradicate rodents, the handling of ammonium nitrate, and so on. For more information on this important subject contact S. P. Lyle, Extension Service.

Economical dairy ration

Bureau of Dairy Industry issued in November a 4-page processed leaflet on "How to Make Up an Economical Dairy Ration" which should be especially useful now. To procure, address Information, Bureau of Dairy Industry, ARA, USDA, Washington 25, D. C.

Goals

The national goals which call on farmers for top production in 1948, and are not greatly different from the wartime goals, will be found in Press Release 2683; procure *by written request* to Press Service, USDA.

Wm. A. Weld

Mr. Weld, head of the Flood Control Section, Regional Water Conservation Division, Soil Conservation Service at Spartanburg, S. C., has left SCS to become a civil engineer in the Army unit engaged in flood-control activities in the Missouri River Basin. He was in SCS since 1944, bar 4 years in the Army, from which he emerged as a lieutenant colonel in May 1946.

Twenty million gardens

That's the goal for next year, 20 million Freedom Gardens; Paul C. Stark is in charge of the campaign. Food produced in these gardens can be substituted for other foods that stand shipment better and will be relished by peoples hungrier than we are likely to be. Garden clubs and groups of neighbors can often save by combining efforts and getting supplies at lower prices. Those who garden in bad have a few weeks of prone activity in store, though where the ground is neither frozen nor too wet it could be spaded now for planting the earliest crops, the rough soil being left to catch winter rains and snow. In any case weeds and diseased plant remains may be cleared away.

Postwar Japan

Under this title, with the subtitle "How Long Must We Help Her?"—Nathan Koenig, Executive Assistant to the Secretary, gives in the autumn 1947 number of The Land, a comprehensive, informative digest of basic troubles in Asia. The article is well illustrated with photographs taken by the author. A while back Mr. Koenig was a member of a Joint War, State, and Agriculture Mission which travelled over Japan and Korea on a survey of food and fertilizer requirements. The article is too long to spoil by abstracting here but, if at all interested in the subject, you will find it well worth your while. The Library gets The Land; to purchase copies address it at 1368 North High Street, Columbus 1, Ohio.

Policy statements

Among important policy statements are the one made November 21 by the Secretary before the Joint Committee on the Economic Report, on the need for encouraging increased food production in other countries, and the other made there the same day by Carl C. Farrington, Assistant Administrator of the Production and Marketing Administration, on allocation controls. Procure from Press Service, USDA, by *writing* for Nos. 2675 and 2669, respectively. Secretary Anderson's November 10 talk before the National Association of Commissioners, Directors, and Secretaries of Agriculture, at Biloxi, Miss., is also well worth your perusal; ask Press Service for No. 2561. Finally, there is the Secretary's statement on the food situation with especial reference to the quantities available for foreign aid, made before the Senate Committee on Appropriations, November 24; ask for No. 2687.

Research and Development Reports

This is a new venture, a publication to appear twice monthly beginning January 1, 1948. Its editor and publisher is former USDA and Department of Commerce employee, John Perry. It will offer yet another outlet for some of our information. For details as to what it will be like contact Perry at 1416 F Street NW., Washington 4, D. C.

Potato story

The Department's mandatory price-support activities on potatoes and on eggs, and the recent results thereof, are again outlined clearly in Press Release 2693, in the form of a letter from Secretary Anderson to Senator Flanders. Ask Press Service for it *by mail*.

Swedish visitor

Miss Ruth Wallensteen of Linköping, Sweden, Director of the Swedish Government's Professional School of Domestic Science and of the Home Extension Service for the Province of Östergotland, recently spent some time visiting our home economics and extension specialists. She will be in this country 7 months.

Pictorial Continuity

The beginner in cinematography will find enough fundamental advice in Pictorial Continuity, by Arthur L. Gaskell and David A. Englander, to prevent future headaches and save many dollars. The chapter on "Angles" will be of great value to the beginner, and under the heading of "Panning" the most common fault in amateur cinematography is brought to light. The amateur movie cameraman will find enough material in this profusely illustrated book to justify an evening's study. Procure from the Library, your bookseller, or Duell, Sloan, & Pearce, Inc., 270 Madison Avenue, New York City 16. (Communicated by Chester A. Lindstrom, Chief of our Motion Picture Service.)

Heredity

The new journal by this title, published by Oliver and Boyd of London and Edinburgh, has now issued its first number. Devoted in the main to genetics, it is edited by C. D. Darlington (now head of William Bateson's old institute) and R. A. Fisher. It has five collaborating editors, three from Europe and two from the United States, and will have room for historical, review, and critical contributions, as well as for records of new research. Papers in the fields of cytology, statistics, biochemistry, evolutionary theory, and breeding work are acceptable, insofar as they are related to genetics.

War Records Monographs

Your attention is called to this series of processed publications being issued by Bureau of Agricultural Economics. No. 1, by Erling Hole, treats Farm Machinery and Equipment; No. 2, by George W. Collier, is Soil Conservation During the War; No. 3, by Roy A. Ballinger, is Sugar During World War II; No. 4, by F. M. Johnson, is on War Food Order 135—Veterans' Preferences for New Farm Machinery and Equipment; and No. 5, by Alvin T. M. Lee, is Acquisition and Use of Land for Military and War Production Purposes, World War II.

Secretaries Who Succeed

In this new book—available from libraries and bookstores—a successful secretary to a big industrialist tells how she achieved her eminence. If one may believe a story by Dorothy Brandon in the October 31 New York Herald Tribune (and why not) this is a book aspiring secretaries should read closely and ponder well. Its author, Esther R. Becker, "a researcher at heart," has for years kept notes on her own bad traits and the problems she and other secretaries face, and has tried to realize and overcome her defects. "Touchiness" is the trait men most dislike in secretaries, but mannish, matter-of-fact women are also obnoxious. The author recommends good telephone technique, and her secretary, who is secretary to a secretary, says *she* pays special attention to the bosses' chapter on How to Relieve Your Boss of Details. (Did she write the book?) Final thought emphasized by several successful secretaries interviewed: Girls, dress carefully and always wear stockings, no matter how hot the weather is.

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